



Excellence Lives Here

PRAIRIE VIEW A&M UNIVERSITY



2024 - 2025 Academic Catalog

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Welcome to the 2024-2025 Prairie View A&M University Online Catalog

The President's Message to Students

Welcome to The Hill!

Established in 1876 as a land-grant institution, Prairie View A& M University (PVAMU) is the second oldest public university in Texas known for an outstanding trajectory of accomplishments made possible by visionary leaders, dedicated alumni, extraordinary students, and stellar faculty and staff.

At PVAMU we are committed to our students' academic achievement and an all-encompassing educational experience. That means an education gained not only from the classroom, but through opportunities for your own exploration, expansion of ideas and attainment of knowledge. Prairie View students build intellectual capital and are nourished in an academic environment enhanced by a variety of co-curricular experiences, including international study and travel, internships, and service learning. This catalog will serve as your guide to the university's academic programs, and your roadmap toward successfully planning for graduation. Much more than a list of courses offered, the catalog is your comprehensive reference and source of information about life at PVAMU, informing you of your rights and responsibilities, and incorporating information that is critical to your success in meeting your educational goals.

The nine colleges and schools housed on the campus boast a variety of degree programs; and our highly qualified faculty are focused on creating a research- driven, responsive, and invigorating learning culture. This is the place where rich tradition meets valuable opportunities. We remain committed to transforming students' lives by embracing bold new ideas and cutting-edge research techniques.

Our dedicated faculty and staff will be partners in your success as you work toward your degree. Their expertise and support, along with the many University resources and services available to you, will enable you to meet your academic, personal and professional aspirations.

Our promise is to not only provide a supportive community but also to help you complete your degree on time, equipped to thrive in a diverse and ever-changing world. There are many great things happening at Prairie View - but at the core of all of it is our commitment to the success of our students. We are focused on providing the resources and support you need to succeed.

What you achieve on your journey through PVAMU is largely a measure of your own hard work and tenacity. It is an investment of time, talent, energy and money that will continue to pay dividends for years to come. The greater the investment you make today, the greater your rewards will be in the future. As your President, I am committed to supporting and strengthening our academic enterprise, ensuring a well-rounded college experience for all of our students, and maintaining the rich legacy of this institution as we work toward an immensely promising future.

I am delighted that you've made Prairie View A&M University your home; and I look forward to seeing you on campus.

Sincerely,

Tomikia P. LeGrande, Ed.D.
President

General University Information

Prairie View A&M University is accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) to award baccalaureate, masters, and doctorate degrees. Questions about the accreditation of Prairie View A&M University may be directed in writing to the Southern Association of Colleges and Schools Commission on Colleges at 1866 Southern Lane, Decatur, GA 30033-4097, by calling (404) 679-4500, or by using information available on SACSCOC's website (www.sacscoc.org (<http://www.sacscoc.org>)).

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

- The College of Agriculture, Food and Natural Resources
- 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
- The College of Nursing
- The School of Public and Allied Health
- Undergraduate Studies
- Office of Graduate Studies

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 University-San Antonio; Texas AgriLife Research; Texas AgriLife Extension Service; Texas Engineering Experiment Station; the Texas Engineering Extension Service; Texas Forest Service; Texas Transportation Institute; and the Texas Veterinary Medical Diagnostic Laboratory.

Administrative Organization

A current organizational chart for Prairie View A&M University is available in the Office of Institutional Effectiveness, Research, and Analysis and in the Office of the Chancellor, Texas A&M University System.

Mission

Prairie View A&M University is a state-assisted, public, comprehensive land grant institution of higher education. The university was designated in a 1984 amendment to the Texas Constitution as an "institution of the first class." It is dedicated to achieving excellence and relevance in teaching, research, and service. It seeks to invest in programs and services that address issues and challenges affecting the diverse ethnic and socioeconomic population of Texas and the larger society including the global arena. The university seeks to provide a high-quality educational experience for students who, upon completion of bachelors, masters, or doctorate degrees, possess self-sufficiency and professional competence. The experience is imbued by the institution's values including, but not limited to, access and quality, accountability, diversity, leadership, relevance, and social responsibility.

Photographs/Videography

Prairie View A&M University and its representatives on occasion take photographs or shoot video footage for the University's use in print and electronic publications. This serves as public notice of the University's intent to use such images as it deems fit. If you should object to the use of your image please contact the Office of Marketing and Communications (<https://www.pvamu.edu/marcomm/>).

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

Family Educational Rights and Privacy Act of 1974 contained in Public Law 93-380 of the Educational Amendments of 1974, is designed to protect the rights and privacy of students.

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

Prairie View A&M University 2024-2025 Academic Catalog

Published: April 2024

The online version of the Prairie View A&M University Information Bulletin is the official version. This bulletin was last updated in March 2024.

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 related 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 an error in the preparation of this or any other of its catalogs. To be assured of the accuracy of the information, students must regularly consult current publications and academic advisors.

The Texas A&M University System

Board Of Regents

Name	Title	Location
Bill Mahomes	Chairman	Dallas
Robert L. Albritton	Vice Chairman	Fort Worth
David C. Baggett	Member, Board of Regents	Houston
John W. Bellinger	Member, Board of Regents	San Antonio
James R. "Randy" Brooks	Member, Board of Regents	San Angelo
Jay Graham	Member, Board of Regents	Houston
Michael A. "Mike" Hernandez III	Member, Board of Regents	Fort Worth
Michael J. Plank	Member, Board of Regents	Houston
R. Sam Torn	Member, Board of Regents	Houston
Elizabeth "Annie" Valicek	Student Regent	

System Administration

Name	Title
John Sharp	Chancellor
Billy Hamilton	Deputy Chancellor and Chief Financial Officer
Joe Elabd	Vice Chancellor for Research
Ray Bonilla	General Counsel
James R. Hallmark	Vice Chancellor for Academic Affairs
Maria L. Robinson	Chief Investment Officer and Treasurer
Philip Ray	Vice Chancellor for Business Affairs
Charlie Hrcir	Chief Auditor
Mark Stone	Chief Information Officer
Jenny Jones	Vice Chancellor for Governmental Relations
Laylan Copelin	Vice Chancellor for Marketing and Communications
W. Nim Kidd	Vice Chancellor for Disaster and Emergency Services
M. Katherine Banks	Vice Chancellor of National Laboratories and National Security Strategic Initiatives
John Hurtado	Interim Vice Chancellor and Dean of Engineering
Jeffrey W. Savell	Vice Chancellor and Dean of Agriculture and Life Sciences
Stanton Calvert	Vice Chancellor Emeritus
Frank Ashley	Vice Chancellor Emeritus

Prairie View A&M University

Administrative Officers

Name	Title
Tomikia P. LeGrande	President
Michael L. McFrazier	Interim Provost and Senior Vice President for Academic Affairs
Cynthia Carter-Horn	Senior Vice President for Business Affairs
Magesh Rajan	Vice President for Research
Edward Willis	Interim Vice President for Student Affairs
Sarina R. Willis	Vice President for Enrollment Management
Kevin H. Hoffman	Chief of Staff
Shena L. Crittendon	Senior Executive Director for Presidential Communications
Anton Goff	Director of Athletics

Academic Deans and Executive Directors

Name	Unit
Gerard D'Souza	College of Agriculture, Food and Natural Resources
Iklas Sabouni	School of Architecture
Dorie J. Gilbert	Marvin D. and June Samul Brailsford College of Arts and Sciences
Munir Quddus	College of Business
Anthony Harris (Interim)	Whitlowe R. Green College of Education
Pamela Obiomon	Roy G . Perry College of Engineering
Camille Gibson (Interim)	College of Juvenile Justice
Allyssa Harris	College of Nursing
Angela Branch-Vital	School of Public and Allied Health
Alphonso Keaton	Undergraduate Studies
Tyrone Tanner	Graduate Studies

Academic Calendars

Academic Calendars

The Office of the Registrar maintains the Academic Calendars for each term. The Academic Calendar can be found online here (<https://www.pvamu.edu/registrar/academic-calendars/>).

General Academic Information

The academic information in this section pertains to all students, select the respective undergraduate or graduate tab from the navigation.

Undergraduate

The Office of Academic Affairs is responsible for establishing and enforcing policies and procedures that promote academic and student success at Prairie View A&M University (PVAMU). As a component of the academic leadership team of the Office of Academic Affairs, the Office of Undergraduate Studies also provides support to undergraduate students by responding to the academic and professional needs of the PVAMU 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 left.

University Administrative Guidelines on Academic Integrity

The commitment to maintaining an atmosphere of intellectual integrity and academic honesty is an essential feature of the Prairie View A&M University (PVAMU) experience. Students choosing to join this academic community are obligated to perpetuate a long legacy of being a proud, productive Panther. Students are expected to commit themselves to truthfulness and the highest standards of academic integrity as an important aspect of personal integrity.

The *Panther Code of Honor* and the *PVAMU Honor Affirmation Statement* apply to all undergraduate and graduate students enrolled or otherwise participating in PVAMU courses, practicums, seminars, and other educational experiences. The *Panther Code of Honor* and the *PVAMU Honor Affirmation Statement* are essential to the honor system's success and will be facilitated through various avenues. All Prairie View A&M University students have the responsibility to know and observe the *Panther Code of Honor* and the *PVAMU Honor Affirmation Statement*.

Panther Code of Honor

All members of the Prairie View A&M University community should conduct themselves in a manner appropriate for a community of scholars. All students are expected to follow all laws and regulations while maintaining absolute integrity and a high standard of individual honor in scholastic work and personal interaction

PVAMU Honor Affirmation Statement

"I will abstain from dishonesty in all scholastic work."

Student and Instructor Responsibilities

Student Responsibilities

Students are responsible for awareness of the University's Administrative Guidelines on Academic Integrity and demonstrating moral and ethical behavior in their academic work. Such behavior includes:

- Adhering to the *Panther Code of Honor* and the *PVAMU Honor Affirmation Statement*;
- Following the instructor's rules and processes related to academic integrity as directed in the course syllabus and related course documents;
- Asking the instructor for clarification if the standards of academic performance are not clear;
- Asking the instructor for clarification if the syllabus, assignments, or grading policies are unclear;
- Helping to foster a campus environment where academic integrity is expected and respected; and
- Treating each other with courtesy and respect and helping to foster a classroom environment in which all students are treated with courtesy and respect.

Students are required to add the *PVAMU Honor Affirmation Statement* and their signature to each academic assignment to reinforce and affirm their adherence to the *Panther Code of Honor* (signature can be wet-signed or electronic). Students are asked to affirm their awareness of the *Panther Code of Honor* at various points during the academic semester. This affirmation reminds students that they have already agreed to adhere to academic integrity standards, as outlined in the PVAMU Student Handbook.

Instructor Responsibilities

Faculty are responsible for being aware of the University Administrative Guidelines on Academic Integrity and contributing to student development by promoting academic integrity, addressing dishonesty, and developing ethical reasoning. Such behavior includes:

- Providing a clear and complete syllabus that describes course expectations, guidelines, and standards of performance, as well as those of the University that concern academic integrity;
- Holding students responsible for knowing these expectations and guidelines;
- Fostering an environment where academic integrity is expected and respected;

- Detecting and properly handling breaches of academic integrity;
- Fostering a classroom environment in which all students are treated with courtesy and respect;
- Evaluating student work based on its academic merit;
- Giving students timely and honest feedback; and
- Being available to discuss appropriate academic matters.

Regulation of academic dishonesty is the direct responsibility of the instructor. However, students are not excused from complying with the *Panther Code of Honor* and the *PVAMU Honor Affirmation Statement* because an instructor did not prevent academic dishonesty.

Prohibited Conduct

Academic dishonesty is defined as any form of cheating or dishonesty that has the effect or intent of interfering with any academic exercise or fair evaluation of a student's performance. The college faculty can provide additional information, particularly related to a specific course, laboratory, or assignment.

The following are examples of prohibited conduct. This list is not designed to be all-inclusive or exhaustive. In addition to academic sanctions, any student found to have committed or to have attempted to commit the following academic misconduct may also be subject to disciplinary review and action as outlined in the PVAMU Student Handbook.

The *Panther Code of Honor* prohibits cheating, plagiarism, and other forms of academic dishonesty, including, but not limited to:

- **Cheating:** Deception in which a student misrepresents that he/she has mastered information on an academic exercise that he/she has not learned, giving or receiving aid unauthorized by the instructor on assignments or examinations. Examples: unauthorized use of notes for a test; using a "cheat sheet" on a quiz or exam; any alteration made on a graded test or exam which is then resubmitted to the teacher;
- **Plagiarism:** Careless or deliberate use of the work or the ideas of another; representation of another's work, words, ideas, or data as your own without permission or appropriate acknowledgment. Examples: copying another's paper or answers, failure to identify information or essays from the Internet and submitting or representing it as your own; submitting an assignment which has been partially or wholly done by another and claiming it as yours; not properly acknowledging a source which has been summarized or paraphrased in your work; failure to acknowledge the use of another's words with quotation marks;
- **Collusion:** When more than one student or person contributes to a piece of work that is submitted as the work of an individual;
- **Conspiracy:** Agreeing with one or more persons to commit an act of academic/scholastic dishonesty; and
- **Multiple Submission:** Submission of work from one course to satisfy a requirement in another course without explicit permission. Example: using a paper prepared and graded for credit in one course to fulfill a requirement and receive credit in a different course.

Ignorance of these guidelines does not constitute a valid defense if a student is charged with cheating, plagiarism, or another violation.

University Procedures 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 participating in acts of academic dishonesty, which includes, but is not limited to, plagiarism, tampering with records, or falsifying 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.

Reporting a Violation of Academic Integrity

Instructor of record means the faculty member or graduate teaching assistant responsible for the course or course section in which the academic dishonesty is alleged to have occurred. If the instructor of record suspects that an Honor Code violation has occurred, the instructor should fill out the "Honor Code Violation/Resolution Report Form" and contact the department head of the course in which the violation took place, and the department head of the student's major to discuss the situation and the Honor Code Process. The instructor has two options, namely,

- Resolve the case through the Faculty-Student Resolution process and report the outcome to the Office of Academic Affairs (Level I and Level II Violations), or
- Ask the Academic Integrity Review Board (AIRB) to investigate and resolve this alleged violation of the Honor Code (Level III and Level IV Violations).

Instructors are required to report all cases of documented misconduct to the AIRB. In a case where the student accused of a violation of the Honor Code *has no previous record of academic misconduct*, an instructor has the option of meeting with the student to resolve the incident using the Faculty-Student Resolution process. The instructor must meet with a student prior to assigning a sanction. A student may also choose not to participate in the Faculty-Student Resolution process or disagree with the sanction. In these situations, their case will be referred directly to the AIRB; this process may include a hearing panel or an administrative meeting, given the particular circumstances of the case.

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 instructor or academic integrity review committee:

- Right to a written notice of the charges at least three (3) working days before the hearing may proceed.
- Right to waive the three (3) day notice of charges.
- Right to reasonable access to the case file.
- Right to review all evidence and question any witness against the student.
- Right to present evidence and/or witnesses on his/her own behalf.
- 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.
- Right to appeal the disciplinary recommendation to the Office of the Provost.

If the student wishes to have a representative (advisor, parent, etc.) present at a hearing before an instructor or academic integrity review committee, he or she may do so. In rare cases, if the student wishes to have an attorney present, the University official will be afforded the same opportunity to have equal representation present.

If the student wishes to appeal a recommendation made by the instructor and/or academic integrity review committee, he/she must provide written notice to the proper level within five (5) working days of receiving notice of the recommendation. **Students who do not submit his/her request by the date specified in the decision letter waives his/her opportunity to appeal.**

Academic Dishonesty Offenses

Committing 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. The University also has the right to rescind course credit, degrees, and/or certificates awarded if it is determined that these were obtained by actions that violate the University policy on academic honesty.

Offense: Cheating

- Taking notes into an 'unseen' exam.
- Copying another student's work.
- Letting another student copy your work
- Getting someone else to sit an exam for you.

Offense: Plagiarism and Multiple Submissions

- Failing to credit sources used in a work or product in an attempt to pass off the work as one's own.
- Attempting to receive credit for work performed by another, including papers obtained in whole or in part from individuals or other sources.
- Attempting to receive credit in one or more classes for the same paper or project without the written approval of instructors involved.

Offense: Collusion

- Completing and submitting individual assignments or work with a partner or group without expressed permission.

Offense: Conspiracy

- Agreeing with one or more persons to commit an act of academic dishonesty.

Offense: Acquiring Information

- Acquiring answers for an assigned work or examination from unauthorized sources, including but not limited to another student present, use of phone, calculator, smartwatch, any form of communication, CHEG.com.
- Working with another person or persons on an assignment or examination when not specifically permitted by the instructor.
- Copying the work of other students during an examination.

Offense: Providing Information

- Providing answers for an assigned work or examination when not explicitly authorized to do so.
- Informing a person of the contents of an examination prior to the time the examination is given.

Offense: Fabrication of Information

- The falsification of the results obtained from a research or laboratory experiment.
- The written or oral presentation of research or laboratory experiments results without the research or laboratory experiments having been performed.

Offense: Misrepresentations, Alterations of Documents and Forgery

- Taking an examination for another person or allowing someone to take an examination for you.
- Signing an attendance sheet for another student or committing similar acts of impersonation.
- The changing of admissions data, test results, transcripts, grade reports, or other documents.

Offense/Violation Levels and Recommended Disciplinary Actions and Sanctions

The Office of Academic Affairs and the Academic Integrity Review Board (AIRB) classifies academic misconduct into four (4) offense/violation levels and recommends four (4) possible sanction levels based upon the seriousness of the violation. Academic sanctions, levied by faculty, range from a warning or reduced grade on a single assignment to failure in the course. When a faculty member believes that the student's behavior raises questions about the student's continued involvement in the academic department, or that the student's behavior is so egregious that an academic sanction is not sufficient, the faculty member will refer the case to the AIRB. If it is found that the student has a history of academic misconduct or if the situation is severe enough, the AIRB may choose additional disciplinary sanctions such as probation, dismissal, suspension, or expulsion from the University. **No disciplinary action shall become effective against the student until the student has received procedural due process.** Faculty should defer to the AIRB for more information. For additional information regarding academic sanctions and definitions please visit the PVAMU Code of Student Conduct (<https://www.pvamu.edu/sa/wp-content/uploads/sites/77/PVAMU-Code-of-Student-Conduct.pdf>).

Below are the brief definitions of the four offense/violation levels that can be enforced by faculty or the AIRB for breaches of the Academic Honor Code, depending on the severity of the academic infraction:

1. **Level One (Minor Offenses)** – In general, Level One offenses involve ignorance or errors in judgment. A Level One offense may occur because of inexperience or lack of knowledge of principles of academic integrity. These violations are likely to involve a small fraction of the total course work, are not extensive, and/or occur on a minor assignment.
2. **Level Two (Moderate Offenses)** – In general, Level Two offenses are unintentional dishonest acts of academic misconduct*. Level Two violations are characterized by dishonesty of a more severe nature or deceit that affects a more significant aspect or portion of the course work than Level One's offenses. The instructor may investigate and adjudicate Level One or Level Two cases following departmental and or college procedures.
3. **Level Three (Major Offenses)** – In general, Level Three offenses are substantial dishonest acts of academic misconduct. Level Three violations include deceit that involves a significant or essential portion of work done to meet course requirements or is preceded by one or more violations at Levels One and Two.
4. **Level Four (Severe/Egregious Offenses)** – Level Four offenses represent the most severe or egregious breaches of intellectual honesty and academic integrity. These violations are serious breaches of conduct, may involve a serious violation of a professional code of conduct, may include extreme cases of dishonesty and maliciousness, and/or conduct that is also a violation of criminal law.

The AIRB hears all Level Three and Level Four cases. When a student is accused of one or more Level Three or Level Four violations that include alleged violations of criminal law, these cases will be referred to the Office of Student Conduct.

* Note, even if a student unintentionally uses another person's work improperly or does something unauthorized while completing an academic activity, he or she is still guilty of academic dishonesty. Instructors have the responsibility to educate students on these issues in order to promote academic integrity.

The provisions in these guidelines do not constitute a contract, express or implied, between any applicant, student, faculty, or staff member of Prairie View A&M University. These guidelines are for informational purposes only. The University reserves the right to change or alter any statement herein without prior notice. These guidelines should not be interpreted to allow a student that begins his or her education under these guidelines to continue his/her entire academic career under the provisions contained in these guidelines.

Detailed information about the University Guidelines on Academic Integrity can be found by visiting the Office of Academic Affairs (<https://www.pvamu.edu/academicaffairs/academic-integrity/>).

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 51.925, sub-chapter (Z), a student may be absent from classes for the observance of a religious holy day 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.

Absence for Military Service

Per Texas Education Code Section 51.9111 (https://texas.public.law/statutes/tex._educ._code_section_51.9111) *Excused Absence for Active Military Service*, Prairie View A&M University shall excuse a student from attending classes, including distance education and other online courses, or engaging in other required activities, including examinations, in order for the student to participate in active military service to which the student is called, including travel associated with the service. A student so excused may not be penalized for that absence and must be allowed to complete assignments or take examinations within a reasonable time after the absence. If the course requirements are not met by the end of the semester in which the student is called to active military service, the grade of "I" may be awarded. Standard academic regulations relating to grades of "I" will apply, as well as university policy on grade grievances and appeals, in the event of such disputes. The maximum period for which a student may be excused is 25% of the total number of class meetings or the contact hour equivalent (not including the final examination period) for the specific course or courses. A student called to active duty also has the option to request a Military Withdrawal (<https://catalog.pvamu.edu/generalacademicinformation/undergraduate/#withdrawalstext>) as outlined in the University Academic Catalog.

If additional information is needed, contact the Veterans Services Office at (936) 261-3563.

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 (30) 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 program director in architecture and construction science (exception Dean of Architecture and of Nursing) will be reviewed within thirty (30) 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 (90) 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 (30) 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. A student may also initiate an official grade appeal with an electronic communication to the instructor or by completing a college appeal document, when applicable.
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 architecture and construction science if 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 assist 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 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, 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 review 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 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 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:
 - a. Report the incident, in writing, to the instructor's or other classroom professional's immediate supervisor (department head, division head, or dean), or
 - 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 214.
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, doctoral 7). Effective Fall 2021, the second 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 lectures 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. Please follow the link to the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) below for more information: www.sacscoc.org (<http://www.sacscoc.org>)

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 semesters.

Course Overloads

Undergraduate students with a 3.0 GPA or higher may be allowed to take a maximum of 21 semester credit hours during any fall and/or spring semester. Taking 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 the 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.

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. While it is recommended that students provide immunization documentation to include TB screening, documentation of meningitis vaccination is required. 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 are to be advised and obtain an alternate PIN number 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 Testing Services 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, co-requisite courses, or academic support, contact the Office of Academic Engagement and Student Success (p. 559).

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.

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, the Dean of the College, 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 Head 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

Colleges and Schools	Degree Majors
College of Agriculture, Food, and Natural Resources	Agriculture
	Human Nutrition and Food
School of Architecture	Architecture
	Construction Science
	Digital Media Arts
Marvin D and June Samuel Brailsford College of Arts and Sciences	African American Studies
	Biology
	Chemistry
	Communications
	English
	History
	Mathematics
	Music
	Political Science
	Physics
	Psychology
	Sociology
	Social Work
College of Business	Accounting
	Finance
	Management
	Management Information Systems
	Marketing
Whitlowe R. Green College of Education	Teacher Education
Roy G. Perry College of Engineering	Chemical Engineering
	Civil Engineering
	Computer Engineering
	Computer Science
	Electrical Engineering
	Mechanical Engineering
College of Juvenile Justice	Criminal Justice
	Juvenile Justice
College of Nursing	Nursing
School of Public and Allied Health	Kinesiology
	Health
	Public Health
Undergraduate Studies	General Studies

Academic Minors

Colleges and Schools	Minor
College of Agriculture, Food, and Natural Resources	Agriculture
	Human Nutrition and Food
	Pre-Veterinarian
School of Architecture	Architecture
	Art
	Construction Science
	Digital Media Arts
Marvin D. and June Samuel Brailsford College of Arts and Sciences	Sustainable Design
	African-American Studies
	Biology
	Chemistry
	Communications
	Creative Writing
	Drama
	English
	History
	Humanities
	Legal Studies
	Mathematics
	Military Science - ARMY
	Military Science - NAVY
	Music
	Philosophy
	Psychology
	Physics
	Political Science
	Social Sciences
Social Work	
Sociology	
Spanish	
College of Business	Accounting
	Business Administration (Management)
	Business Analytics
	Economics
	Finance
	Human Resource Management
	Innovation and Entrepreneurship
	International Business
	Management Information Systems
	Marketing
	Personal Financial Planning
Whitlowe R. Green College of Education	Real Estate
	Supply Chain Management
Roy G. Perry College of Engineering	Civil Engineering
	Chemical Engineering
	Computer Science
	Mechanical Engineering
College of Juvenile Justice	Criminal Justice
	Cybersecurity Interdisciplinary

School of Public and Allied Health	Emergency Management & Crisis Informatics
	Applied Exercise Science
	Dance
	Health
	Kinesiology
	Public Health
	Sport Management

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.

Grade	Meaning	Score Range	Grade Values
A	Excellent	90-100	4
B	Good	80-89	3
C	Satisfactory	70-79	2
D	Passing	60-69	1
F	Failing	0-59	0
FN	Failing (Non-attendance)	0-59	0
S	Satisfactory	70-100	0
U	Unsatisfactory	0-69	0
I	Incomplete		0
P	Passing	70-100	0
NP	Not Passing	0-69	0
W	Withdrawal from a course		0
WV	Withdrawal from the University Voluntarily		0
MW	Military Withdrawal		0
AW	Administrative Withdrawal		0

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.

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. **Only grades earned in coursework completed at Prairie View A&M University shall be used in determining a student's grade point average.**

Calculating GPA

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

A = 4.0

B = 3.0

C = 2.0

D = 1.0

F = 0

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:

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

Semester Grade Point = $36.0/17.0 = 2.1$

Grade Reports

Students may acquire their mid-term and final grades via the web through PantherTracks (https://pv-pssbw-201.pvamu.edu:9020/PROD/twbkwbis.P_WWWLogin/). 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 in the Academic Calendar for each graduation semester (fall, spring, or summer).

To initiate 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 & Scholarships 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 Submittal to the Registrar's Office

A student has 10 business 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 Department Head of his/her department to complete a requirement for graduation at another institution during his/her final semester at the university, must have on file in their student record 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 and may not participate in the commencement exercise. 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. **Grades earned at other institutions may not be used to remove a grade point deficiency acquired in residence at Prairie View A&M University.**

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. Written specifications identifying the course or courses to be taken must be signed by the student, the advisor and the department head. The pre-approved transfer credit form will be forwarded to the Office of Transfer Articulation for inclusion in the student's record. If there is no agreement on file in the Office of Transfer Articulation, grades for courses taken at other institutions by students attending Prairie View A&M University may not be accepted. **Grades earned at other institutions may not be used to remove a grade point deficiency acquired in residence at Prairie View A&M University.**

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 in the 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 within one year. A student should not re-enroll in a course for which a grade of "I" has been recorded.

Second Baccalaureate Degree Requirement

A second bachelor degree will be conferred when a student has completed at least 30 semester hours in residence (24 semester hours in upper division [3xxx – 4xxx] courses beyond those counted toward the first degree.) Any additional requirements of the department and college approving the respective degree plan and state legislative mandated requirements must be completed. If the student did not take six (6) semester hours of U.S. History and six (6) semester hours of U.S. Government, the student must take the courses or pass CLEP examinations to meet this twelve (12) semester hour requirement Texas mandates for all bachelor degree recipients. Also, at least 12 credit hours (six of which are upper level courses) toward the second degree must be completed in residence after the awarding of the first degree. To obtain a second degree you have to be readmitted to the university through the Office of Undergraduate Admissions.

Dual Degree

Students interested in fields of study that fall under different degree types must complete a dual degree instead of a double major. Dual degrees are two different bachelor's degrees awarded at one commencement (e.g., Bachelor of Business Administration in Management and Bachelor of Science

in Computer Science). Dual degrees require completion of at least 150 credit hours with at least 30 credit hours unique to each program. Additional coursework may include academic minors and unrestricted electives.

Double Majors

Students who want in-depth study in more than one academic field within the same degree designation (e.g., Bachelor of Arts in History and Bachelor of Arts in Political Science) may elect to pursue a double major. The following conditions apply for double majors:

- Students must complete the University core curriculum.
- Students must complete all coursework specific to the major fields of study, all College requirements, and all support area requirements.
- Students completing a double major are not required to complete any unrestricted elective credits.
- Students completing a double major are not required to declare academic minors.
- Students must adhere to the GPA requirements of each major field of study.
- Students who are double majors must have an advisor in each major field of study and meet with them regularly to ensure timely progress towards graduation.
- Students may graduate with a double major so long as they complete all the requirements for both majors, comply with the policy on double-dipping, and comply with all regular requirements for graduation.

Double-dipping for Double Majors

Double-dipping is the application of a single course to multiple academic requirements. Examples of double-dipping include:

- Support area requirement: When both majors list the same course as a support area requirement, the class meets both requirements.
- College requirements: When both majors are in similar fields (e.g. two areas of engineering or business), a student with a double major can count the same course towards both requirements.

Programs that do not allow double-dipping will indicate so in the program information section of the university catalog. The Change of Major form must be completed to establish a double major or a dual major. The policies governing double-dipping may also be applicable to students pursuing dual degrees. Triple-dipping is not permitted.

RN-BSN Program: Second Baccalaureate Degree

This program of study applies to the student who has a bachelor degree in another field, or an associate degree in nursing, and who is pursuing the BSN as a second baccalaureate degree. The program of study for the Prairie View A&M University's Bachelor of Science in Nursing Degree requires that the student has 127 semester hours for program completion. These hours include 63 prerequisite hours, 36 hours earned through advanced standing credit if graduated from an accredited ADN program by the National League for Nursing Accrediting Commission (NLNAC), and 28 hours earned through enrollment in the College of Nursing. Forty-four (44) semester hours of core non-nursing prerequisite course requirements may be transferred from any accredited college or university.

Advanced Standing Credits in Nursing from ADN Program includes 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 NLNAC accredited ADN program.

Time Limit to 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 for Dean's Honors, 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 3.0 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 and 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 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 any fall or spring semester, the student will be suspended.
5. 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.
6. 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 pursuing 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. **Grades earned at other institutions may not be used to remove a grade point deficiency acquired in residence at Prairie View A&M University.**

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 (<https://www.pvamu.edu/pvplace/>).

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 Advising, Course Instructors, Department Head, or Dean. A student should consult first with their academic advisor 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 student's 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

Office of Graduate Studies

Since this 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 supervised under the joint partnership between the Office of Graduate Studies and the various colleges and schools. This 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 advanced degrees. Similarly, the Academic Catalog is the official sourcebook for graduate programs at the University. Thus, 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

- College of Agriculture, Food, and Natural Resources
- 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 Juvenile Justice
- College of Nursing
- School of Public and Allied Health

Graduate programs leading to Master's degrees, Professional Certification, Certificate Endorsements, and Doctoral degrees are offered. Prairie View A&M University offers most 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 at the Prairie View A&M University Northwest Houston Center and the College of Nursing in the Houston Medical Center. Selected graduate programs are offered online.

Academic Advising, Registration, and Degree Plans

Graduate students are assigned to one or more faculty advisors during the first (1st) semester in which they are enrolled at the university. New students are required to meet with an advisor before enrolling in classes to plan and obtain approval of plans of study. Continuing students should confer with their faculty advisor at least once (1) 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 shown at <https://www.pvamu.edu/pvplace/> website. Students should consult with their advisors regarding the registration schedule, procedures for registration, and other pertinent registration information. The schedule is available several weeks in advance of registration.

Continuous Enrollment

All graduate students enrolled in semester-based programs must register for at least one (1) course and pay associated tuition and fees each semester, not including summer, until the degree is awarded. Certificate, masters, and pre-candidacy doctoral students who will be away from the University for one (1) or two (2) semesters may request a waiver of this continuous enrollment requirement and its associated tuition and fees for the relevant term(s). A leave of absence is granted at the discretion of the Academic Dean (see Leave of Absence policy). A graduate student should refer to program handbooks for any additional program-specific requirements.

International graduate students must register for at least nine (9) credit hours each semester to be considered full-time. Only one (1) three (3) credit hour class during each semester may be counted towards a full course of study. An international student cannot drop below the minimum number of hours without prior approval from the Office of International Programs. A student who drops below a full course load without prior approval may be considered to be out of status. An international graduate student who needs less than full-time hours to complete the requirements for the degree may apply for a reduced course load with approval from the academic department and the Office of International Programs.

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.

Registration in Absentia

Registration in absentia is for students pursuing doctoral or master's degrees in academic disciplines. A student is required to be enrolled in the semester he/she intends to graduate. Registration in absentia is permitted only for a graduate student who has met all degree requirements, including successful defense of a thesis or dissertation, but did not graduate in the semester of completion. The following semester, a student must register in absentia as well or reapply for graduation.

To qualify for registration in absentia, a student must have minimal need for access or use of university facilities or resources during the registration in absentia period. Instead, if a student who is not registered in absentia and intends to use university resources, including interaction with their project,

thesis or dissertation committee members, he/she must register for a minimum of one (1) credit hour of a research, thesis, project, or dissertation course.

The Registration in Absentia Form must be approved by the Academic Advisor, Department Head, and Academic Dean before final approval by the Dean of Graduate Studies. The form must be approved at all levels before the registration in absentia fee is paid. The fee for in absentia registration is \$15 for Texas residents and \$17.50 for non-residents. The completed application must be submitted to the Office of the Registrar by the census date (12th class day) of the applicable semester. If the deadline is not met, a student must apply for a subsequent semester.

Leave of Absence

Graduate students are expected to remain continuously enrolled in the fall and spring semesters while pursuing a graduate degree. In certain circumstances, a student may find the need to take a formal leave of absence from a program. A student in good academic standing, who does not expect to be enrolled in a given semester, may request a leave of absence for up to one (1) year, but still must meet the time limit on work for the master's and doctorate degrees. The Graduate Student Request for Leave of Absence form must be submitted to the department. A leave of absence is granted at the discretion of the Academic Dean and Dean of Graduate Studies. A graduate student should refer to program handbooks for additional program-specific requirements.

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

A student must complete the requirements for the master's degree within six (6) consecutive years after the first date of enrollment in Graduate Studies. A student must complete the requirements for the doctorate degree within nine (9) consecutive years after the first (1st) date of enrollment in Graduate Studies.

Credit for individual courses completed in residence between six (6) and seven (7) years before all requirements for the master's degree is completed may be re-validated by a 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 Expectations

Comprehensive Examinations

Comprehensive or qualifying/preliminary examinations are designed to test a student's knowledge, his/her ability to integrate and synthesize the wealth of information in the field, and his/her preparation for engaging in the kind of independent scholarship required to complete a master's thesis or doctoral dissertation.

Master's Programs. Not all master's programs require a comprehensive or qualifying/preliminary examination. A student should consult with his or her graduate program coordinator regarding department-specific procedures for comprehensive or qualifying/preliminary examinations or other work required toward the completion of the degree.

Doctoral Programs. Before a doctoral student is admitted to candidacy, he/she must successfully complete doctoral examinations. A student should consult with his or her graduate program coordinator regarding department-specific procedures for comprehensive or qualifying/preliminary examinations. 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.

Application for Comprehensive Examination

Procedures for the comprehensive or qualifying/preliminary examination are governed by the department. A student must contact his/her department for the Application for Comprehensive Examination (if applicable) and relevant deadlines.

Availability of Examinations

Examinations are available during a time period specified by the program. Students must meet the application deadline in order to sit for a comprehensive or qualifying/preliminary examination.

Scoring of the Comprehensive Examination

Comprehensive or qualifying/preliminary examinations are typically reviewed by faculty in the respective disciplines.

Appealing a Failing Score

Each graduate program has specific guidelines for appealing a failed examination. A student should reference the program handbook in their academic department for guidance.

Graduate Thesis, Dissertation, and Doctoral Project Committees

The school/college dean identifies all faculty qualified to serve as Chair for a thesis, dissertation, or doctoral project committee. In consultation with the qualified faculty member, the graduate program coordinator, 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 doctoral project when the graduate committee chair **is not** the thesis/dissertation/doctoral project research advisor.

Graduate Thesis, Dissertation, or Doctoral Project

The graduate thesis, dissertation, or doctoral project 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 thirty (30) days after graduation the student must submit a final draft of the thesis, dissertation, or doctoral project to the Office of Graduate Studies for approval.

An oral examination is generally required of a thesis, dissertation, or doctoral project student. The oral examination is designed to test the verbal and explanatory abilities of students as they explain and defend their research. The examining body is the student's graduate thesis, dissertation, or doctoral project committee and may include other interested departmental faculty. The Office of Graduate Studies' assigned staff member may attend or monitor an oral examination. The examination can be repeated only once.

Academic Progress Standards

General Standards

In order to show satisfactory progress toward an advanced degree, a student must maintain a cumulative Grade Point Average (GPA) of 3.0. A course in which a grade below "C" was earned cannot be counted toward graduation requirements. A student who, in any two consecutive semesters including the summer term, has a cumulative grade point average below 3.0 may be subject to academic dismissal. The university policy on Probation, Dismissal, and Academic Appeals provides further guidance on satisfactory academic progress and the process to appeal an academic dismissal.

Individual graduate programs may have more strict academic standards, which include a maximum number of grades below a "B" before dismissal from the program.

Doctoral Program Standards

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 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 doctorate, only grades of "B" or better indicate satisfactory completion of courses required for the doctorate. A doctoral student's progress is monitored at the program level and a student should consult with his/her Graduate Program Coordinator or Department Head regarding specific program level academic standing requirements.

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 Office of Graduate Studies. The change must be completed during the regular registration period for a particular semester or term. 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.

Courses, Credits, and Grades

The Course Numbering System

Beginning with the 1984-85 academic year, Prairie View A&M University moved from a three (3)-digit to a four (4)-digit course numbering system. Under the new system, the first (1st) digit represents the course level (i.e., below college level/developmental 0, freshman 1, sophomore 2, junior 3, senior 4, masters 5, and doctoral 7). Beginning in Fall 2021, the second (2nd) 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 (1) lecture contact hour per week for one (1) semester. Time requirements for the semester credit hour in activities other than lectures 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 nine (9) semester credit hours during the regular fall and spring semesters and six (6) semester credit hours for the summer semester.
2. During a regular session, a graduate student may not enroll in more than twelve (12) semester credit hours without permission from the advisor, Department Head, and Dean. Approval from the respective college/school dean is required for fifteen (15) semester credit hours and approval from the Provost and Senior Vice President for Academic Affairs is required for any semester credit hours over fifteen (15).
3. During a five (5) weeks summer session, a graduate student may not enroll in more than six (6) semester hours. The total credit hours earned for the two (2) summer sessions may not exceed twelve.
4. A graduate student may not enroll in more than three (3) semester credit hours during three (3) weeks of a summer session.
5. A graduate student enrolled in a three (3)-week session may not enroll in more than one three (3)-hour course in the five (5)-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 opportunities. NOTE: Courses taken more than twice (2) 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 <https://www.pvamu.edu/pvplace/>. 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

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

Grade	Meaning	Score Range	Grade Values
A	Excellent	90-100	4
B	Good	80-89	3
C	Satisfactory	70-79	2
D	Passing	60-69	1
F	Failing	0-59	0
FN	Stopped Out		0
S	Satisfactory	70-100	0
U	Unsatisfactory	0-69	0
I	Incomplete		0
IP	In Progress		0
NR	Grade Not Reported		0
W	Withdrawal from course		0
WV	Withdrawal from the University Voluntarily		0
MW	Military Withdrawal		0
AW	Administrative Withdrawal		0

Satisfactory/Unsatisfactory Grade

A graduate student may not receive grades other than satisfactory/unsatisfactory ("S"/"U") for dissertation courses. "S"/"U" grades will not factor into GPA computation.

In Progress Grade

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

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.

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 doctorate degree at Prairie View A&M University. Graduate credit earned at another accredited institution during enrollment in the graduate program at Prairie View A&M University cannot be used to satisfy a certificate/degree requirement at that institution fulfilling the degree requirements 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), the year with grade(s) received, and a copy of the course description(s) from the transfer institution's catalog must be received by the Office of Graduate Studies before transfer credits may be reviewed for approval.

This institution will not consider credits from other institutions to meet the 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 and Doctoral Level

Colleges and Schools	Degree Majors
College of Agriculture, Food, and Natural Resources	MS Natural Resources and Environmental Sciences
	MS Nutrition*
School of Architecture	MARCH Architecture
	MCD Community Development
Marvin D and June Samuel Brailsford College of Arts and Sciences	MS Chemistry
	MSJFP Juvenile Forensic Psychology**
	MS Clinical Adolescent Psychology
	PHD Clinical Adolescent Psychology
	MSW Social Work
College of Business	MA Sociology
	MS Accounting
	MBA General Business Administration
	DBA Business Administration
Whitlowe R. Green College of Education	MA Counseling
	MAED Curriculum and Instruction
	MSED Curriculum and Instruction
	MED Curriculum and Instruction
	MED Special Education
	MSED Special Education
	MED Curriculum and Instruction - Reading Education
	MSED Curriculum and Instruction - Reading Education
	MED Educational Administration
	MSED Educational Administration
	MS Human Sciences
PHD Educational Leadership	
Roy G. Perry College of Engineering	MS Computer Information Systems
	MS Computer Science
	MSENGR Engineering
	MSEE Electrical Engineering
College of Juvenile Justice	PHD Electrical Engineering
	MSJJ Juvenile Justice
	PHD Juvenile Justice
College of Nursing	MSN Nurse Administration
	MSN Nurse Education

	MSN Nurse Practitioner
	DNP Nursing Practice
School of Public and Allied Health	MED Health
	MS Health
	MED Physical Education
	MS Physical Education

* Pending SACSCOC Approval

** Moratorium

Graduation 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 in the Academic Calendar <https://www.pvamu.edu/registrar/academic-calendars/>. Upon completion of all requirements for the master's degree, candidates are certified for graduation by the Dean of 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 <https://www.pvamu.edu/registrar/graduation/applying-for-graduation/> 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.

Canceling a Graduation Application After Submission to the Registrar's Office

A student has ten (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.

Probation, Dismissal, and Appeals

All graduate students are required to maintain a 3.0 cumulative GPA. If a student's cumulative GPA falls below 3.0 during any semester of enrollment, the student will be placed on academic probation. Within a semester, the student must raise his/her GPA to 3.0 or above or they may be dismissed from Graduate Studies. A review of a graduate student's academic performance and progress may result in a recommendation for dismissal from the program. A student who is dismissed has the right to appeal the decision first to the departmental committee, followed by the Dean of the College and the Dean of Graduate Studies. The decision first rests with the departmental committee. If the pertinent department/school, the College Dean, and the Dean of Graduate Studies agree to reinstate the student, the decision will be communicated to the student. The decision regarding summer and fall dismissals will be made in the spring semester and dismissals in the fall semester will be decided in the spring semester.

A graduate student who is readmitted will return on academic probation until the cumulative GPA of 3.0 is met. A student who earns a 3.0 term GPA while on probation may register for subsequent semesters without an appeal. A student who earns a term GPA of less than 3.0 while on probation will be dismissed from the program. Individual graduate programs may also impose additional cumulative GPA and/or grade restrictions for their students.

Academic Appeal Process

The 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 appeal for readmission. Students should carefully review the instructions for submitting the appeal and adhere to the prescribed format. Appeal documents may be found on the Office of Graduate Studies website. All appeals should be signed and submitted to the Office of Graduate Studies. 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 from the Office of the Registrar

will generally be transmitted to the respective graduate students via email by the fifth (5th) working day after grades have been posted for the semester or session. Students are encouraged to check their grades soon after the end of a given semester to determine if an appeal is necessary.

The deadlines for submitting the appeal for readmission 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 on the Office of Graduate Studies website. A student will be notified by the Office of Graduate Studies within two weeks of submission of the appeal documents as to whether the appeal has been denied or approved.

Academic appeals are only considered for dismissals that occur at the end of a fall or spring semester. For a student dismissed after a summer term, the academic appeal will not be considered until the following spring.

Deadline for submitting Academic Appeal to Graduate Studies*

Fall (dismissal at end of spring term) - August 1

Spring (dismissal at end of summer or fall term) - January 2

* If the date falls on a weekend or holiday, the deadline will be the following business day.

Graduate Non-Teaching and Teaching Assistantships

University Graduate Non-Teaching and Teaching Assistantships are managed by colleges and schools <https://www.pvamu.edu/academics/>. 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 teachings 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 eighteen (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 (2nd) language" may be appointed as graduate teaching assistants only when the 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 a full-time doctoral student at Prairie View A&M University.
2. Must be in good academic standing.

Academic Information and Regulations

Academic Suspension Appeals

Students who want to appeal their academic suspension status must upload a typed letter of appeal, a letter of recommendation, and supporting documents to the Admissions and Academic Standards Committee. Please visit the Academic Suspension Appeals website for further information regarding the documents required for appeal at www.pvamu.edu/student-success/suspension (<https://www.pvamu.edu/student-success/suspension/>). Within 2-4 weeks after the semester reinstatement deadline, students will receive correspondence regarding their appeal via email with an official letter regarding the approval or denial. Academic suspension appeal packets must be received by the posted deadline for the semester in which the student intends to be reinstated. Please see Academic Suspension Appeals website for the posted deadlines.

- **Notification of Academic Suspension:** After Final Grades are Posted
- **Deadline for Submitting Electronic Appeal:** Visit Academic Suspension Website
- **Notice of Approval or Denial of Academic Suspension Appeal:** 2-4 weeks after the Appeal Submission Deadline

When a student's academic suspension appeal is denied, 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 from the university.

Returning from Academic Suspension

All students returning from academic suspension must adhere to the Policy for Students Returning from Academic Suspension. Please see the policy below.

Students who are returning from academic suspension must adhere to the following policy:

1. Students must meet with an assigned academic advisor to create an academic success plan for the student's first full semester. The student is required to adhere to all requirements of the academic success plan, which will include attendance at academic workshops and tutorial sessions.
2. Students shall enroll in no more than 13 credit hours for their first semester returning from suspension. Exceptions on the number of credit hours can be determined by a university official.
3. Students must meet with the academic advisor a minimum of two times during the returning semester regarding their academic progress.

Academic Dismissal

After a return from second suspension, if all academic requirements set forth within the Policy for Students Returning from Academic Suspension are not met, including meeting the minimum cumulative GPA of 2.00, a student will be dismissed from the university. There is no appeal process for academic dismissal.

For any questions or concerns regarding the academic suspension appeal process, please contact the Admissions and Academic Standing Committee.

Academic Engagement and Student Success
Admissions and Academic Standing Committee
 Prairie View A&M University
 Phone: (936) 261-5914
 Email: appeals@pvamu.edu

Admission Appeals

Once a student has been denied admission to the University, they have the option of appealing their admission decision. The student will have to write a typed letter of appeal and submit a minimum of one letter of recommendation to the Admissions and Academic Standing Committee. The student will submit their appeal letter and appeal documents to PVAMU Admissions Appeal Documents (<https://dynamicforms.ngwebsolutions.com/Submit/Start/78b213b0-2bc5-4604-800e-4a396a038ced/?SSO=N>). Additional information regarding the admissions appeal process will be provided in the student's denial letter.

All appeals are handled by an external committee not comprised of admission officers. Once the process is completed, a student will be notified of the appeal decision by the Office of Undergraduate Admissions.

If a decision has been made and the student's admissions appeal is accepted, the student must adhere to the *Policy for Students Admitted on Appeal*. Please see policy below.

Students who are admitted on appeal must adhere to the following policy:

1. Students must meet with an academic advisor to create an academic success plan before enrolling in courses. The student is required to adhere to all requirements of the academic success plan, which will include attendance at academic workshops and tutorial sessions.

2. Students shall enroll in no more than 13 credit hours for their first semester. Exceptions on the number of credit hours can be determined by a university official.
3. Students must register for the PVEX 1000 – First-year Experience Course during the first full semester.
4. Students must meet with an assigned academic advisor a minimum of three times during their first full semester regarding their academic progress.

For any questions or concerns regarding the admissions appeal process, please contact the Admissions and Academic Standing Committee.

Academic Engagement and Student Success
Admissions and Academic Standing Committee
 Prairie View A&M University
 Phone: (936) 261-5914
 Email: appeals@pvamu.edu

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. **Only grades earned in coursework completed at Prairie View A&M University shall be used in determining a student’s grade point average.**

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 Transfer Articulation 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. 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 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, nor will AP and CLEP credits count in the student's cumulative GPA. Students receive only applicable credit hours for satisfactory achievement on all PLA exams. Applicable PLA 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 PLA transcript is sent to PVAMU designating the grade or score received on the PLA exam. PLA 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 1303 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 1303 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.

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 is a program that allows students to pursue college-level studies while still in high school to attain college-level credit. To award credit, students must receive a minimum score of three (3) or higher. Students should view the Prairie View A&M University AP Course Equivalency Table to view the exams awarded for credit at the university and what course credit they will receive for that AP exam. Credit will not be awarded for an exam if the student is enrolled in the course or has already taken the course.

Scores must be received from the College Board on an official AP Student Score Report for Colleges and Universities 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. To award credit, students must receive a passing score of 50 or higher; however, qualifying scores may vary by department and college. Students should view the CLEP Course Equivalency Table to see the exams awarded for credit at the university and what course credit they will receive for that CLEP exam.

CLEP tests taken at Prairie View A&M University or at another institution will not 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. Scores from the general knowledge tests will not be accepted. Only scores from the subject tests will be accepted. Credit will not be awarded for an exam if the student is enrolled in the course or has already taken the course.

Scores must be received from the College Board on an official CLEP Transcript 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. Students must receive a passing score of 400 or higher to awarded credit; however, qualifying scores may vary by department and college. Students should view the DSST Course Equivalency Table to see the exams awarded for credit at the university and what course credit they will receive for that DSST exam.

DSST exams taken at Prairie View A&M University or at another institution will not 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. Scores from the general knowledge tests will not be accepted. Only scores from the subject tests will be accepted. Credit will not be awarded for an exam if the student is enrolled in the course or has already taken the course.

Scores must be received from DSST on an official DSST Score Report/Transcript before credit is awarded.

International Baccalaureate Organization (IBO)

International Baccalaureate offers a continuum of international education for students from ages 3 to 19. It comprises four programs that focus on teaching students to think critically, independently, and inquire with care and logic. PVAMU awards credit for IB exams taken at both the Higher Level (HL) and the Standard Level (SL). Students should view the IB Course Equivalency Table to see the exams awarded for credit at the university and what course credit they will receive for that IB exam. 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. Student must request that their official IB transcript directly the International Baccalaureate program.

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. Credit will not be awarded for an exam if the student is enrolled in the course or has already taken the course. Students who score less than a 4 will not be granted credit for that particular exam. No grade will be awarded, only credit for specific courses.

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

Examination	Score	Semester Credit Hours	University Course Name	University Course Number
Art History	3	6	ARTS	ARTS 1303 & ARTS 1304
Biology	3	10	BIOL	BIOL 1501 & BIOL 1502
Calculus AB	3	4	MATH	MATH 2413
Calculus BC	4	8	MATH	MATH 2413 & MATH 2414
Calculus BC	3	4	MATH	MATH 2413
Chemistry	3	6	CHEM	CHEM 1303 & CHEM 1304
Chinese - Language	3	6	CHIN	CHIN 1301 & CHIN 1302
Chinese - Language	4	6	CHIN	CHIN 1301 & CHIN 1302
Chinese - Language	5	12	CHIN	CHIN 1301, CHIN 1302, CHIN 2311 & CHIN 2312
Computer Science A	3	6	COMP	COMP 1315 & COMP 1336
English – Language and Composition	3	3	ENGL	ENGL 1301
English - Language and Composition	4	3	ENGL	ENGL 1301
English - Language and Composition	5	6	ENGL	ENGL 1301 & ENGL 1302
English – Literature and Composition	3	3	ENGL	ENGL 2341
French – Language	3	6	FREN	FREN 1013 & FREN 1023
French - Language	4	6	FREN	FREN 1013 & FREN 1023
French - Language	5	12	FREN	FREN 1013, FREN 1023, FREN 2013 & FREN 2023
Government and Politics – U.S.	3	3	POSC	POSC 2305
History – U.S.	3	6	HIST	HIST 1301 & HIST 1302
Human Geography	3	3	GEOG	GEOG 1302
Macroeconomics	3	3	Principles of Macroeconomics	ECON 2301
Microeconomics	3	3	Microeconomics	ECON 2302
Music Theory	3	3	MUSC	MUSC 1311
Physics 1	3	4	PHYS	PHYS 2325 & PHYS 2125
Physics 2	3	4	PHYS	PHYS 2326 & PHYS 2126
Psychology	3	3	PSYC	PSYC 2301
Spanish – Language	3	6	SPAN	SPAN 1301 & SPAN 1302
Spanish – Language	4	6	SPAN	SPAN 1301 & SPAN 1302
Spanish – Language	5	12	SPAN	SPAN 1301, SPAN 1302, SPAN 2311 & SPAN 2312
Spanish – Literature	3	6	SPAN	SPAN 3302

Statistics	3	3	MATH	MATH 1342
Studio Art 2	3	3	Drawing I	ARTS 1316
World History	3	3	World Civilizations II	HIST 2322

CLEP Course Equivalency Table Credit

Name of Examination	Required Score	Course Credit
Composition and Literature		
American Literature	50	ENGL 2327
Analyzing and Interpreting Literature	50	ENGL 2341
English Literature	50	ENGL 2322
College Composition	53	ENGL 1301 & ENGL 1302
Humanities	50	HUMA 1301
Foreign Languages		
French Level I	50	FREN 1013 & FREN 1023
French Level II	59	FREN 1013 & FREN 1023 FREN 2013
Spanish Level I	50	SPAN 1301 & SPAN 1302
Spanish Level II	63	SPAN 1301 & SPAN 1302 SPAN 2311
Spanish with Writing I	50	SPAN 1301 SPAN 1302
Spanish with Writing II	65	SPAN 1301 & SPAN 1302 SPAN 2311 SPAN 2312
History & Social Sciences		
American Government I	52	POSC 2305
American History I...1877	50	HIST 1301
American History II...1865	50	HIST 1302
Human Development	50	PSYC 2308
Intro to Psychology	50	PSYC 2301
Intro to Sociology	50	SOCG 1301
Principles of Macroeconomics	50	ECON 2301
Principles of Microeconomics	50	ECON 2302
Science & Mathematics		
Algebra	50	MATH 1314
Calculus	50	MATH 2413
Precalculus	50	MATH 1511
General Biology	50	BIOL 1308 & BIOL 1108
General Chemistry	52	CHEM 1311 & CHEM 1111
Business		
Financial Accounting	50	ACCT 2301
Introductory Business Law	50	BLAW 2301
Principal of Management	50	MGMT 3310
Principles of Marketing	50	MRKT 3310
Information Systems & Computer Applications ²	50	MISY 1305 or COMP 1300

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

² Major Driven

DSST Course Equivalency Table

Examination	Score	Semester Credit Hours	University Course Name	University Course Number
Introduction of Business	400	3	Introduction to Business	MGMT 1301
Organizational Behavior	400	3	Introduction to Organizational Behavior	MGMT 3311
Personal Finance	400	3	Personal Financial Planning Management	FINA 1307

International Baccalaureate Course Equivalency Table

IB Higher Level Examination	Minimum score	PVAMU course	SCH
Biology SL	4 with diploma	BIOL 1501	5
Biology HL	4	BIOL 1501	5
Biology HL	5	BIOL 1501 BIOL 1502	10
Business and Management SL	4 with diploma	MGMT 1301	3
Business and Management HL	4	MGMT 1301	3
Chemistry SL	4 with diploma	CHEM 1303	3
Chemistry HL	4	CHEM 1303	3
Computer Science I SL	4 with diploma	COMP 1315	3
Computer Science I HL	4	COMP 1315	3
Economics SL	4 with diploma	ECON 2301	3
Economics HL	4	ECON 2301 ECON 2302	6
English Language A SL	4 with diploma	ENGL 1301	3
English Language A HL	4	ENGL 1301	3
English Language A HL	5	ENGL 1301 ENGL 1302	6
Geography SL	4 with diploma	GEOG 1302	3
Geography HL	4	GEOG 1302	3
Histories (Americas) SL	4 with diploma	HIST 1301	3
Histories (Americas) HL	4	HIST 1301	3
Mathematics	4	MATH 1314	3
Mathematics: Analysis and Approaches SL	4 or 5 w/diploma	MATH 1314	3
Mathematics: Analysis and Approaches SL	6 w/diploma	MATH 1511	5
Mathematics: Analysis and Approaches HL	4	MATH 1511	5
Mathematics: Analysis and Approaches HL	5	MATH 1511 MATH 2413	9
Mathematics: Applications and Interpretations SL	4 or 5 w/diploma	MATH 1314	3
Mathematics: Applications and Interpretations SL	6 w/diploma	MATH 1511	5
Mathematics: Applications and Interpretations HL	4	MATH 1511	5
Mathematics: Applications and Interpretations HL	5	MATH 1511 MATH 1342	8
Music SL	4 w/diploma	3	MUSC 1306
Music HL	5	MUSC 1306	3
Physics SL	4 w/diploma	PHYS 1301	3
Physics HL	4	PHYS 1301	3
Psychology SL	4 w/diploma	PSYC 2301	3
Psychology SL	4	PSYC 2301	3
Spanish A or B SL	4 w/diploma	SPAN 1301	3
Spanish A or B SL	5 w/diploma	SPAN 1301	6
Spanish A or B SL	5 w/diploma	SPAN 1301 SPAN 1302	6
Spanish A or B HL	4	SPAN 1301 SPAN 1302	6
Spanish A or B HL	5	SPAN 1301 SPAN 1302 SPAN 2311 SPAN 2312	12
Theater Arts SL	4 w/diploma	DRAM 13110	3
Theater Arts HL	4	DRAM 1310	3
Visual Arts SL	4 w/diploma	3	ARTS 1301
Visual Arts SL	4	ARTS 1301	3

French A or B SL	4 w/diploma	3	FREN 1013
French A or B SL	5 w/diploma	FREN 1013 FREN 1023	6
French A or B HL	4	FREN 1013 FREN 1023	6
French A or B HL	5	FREN 1013 FREN 1023 FREN 2013 FREN 2023	12

Additional information can be obtained by contacting the following office:

Academic Engagement and Student Success

Testing Services

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: www.pvamu.edu/testing (<http://www.pvamu.edu/testing/>)

The Office of Testing Services offers various examinations to students, faculty, staff, and the surrounding community. Exams offered include the Texas Success Initiative Assessment (TSI), CLEP, and HESI A2. Students must make an appointment and pay all exam fees online, test takers must adhere to the rules of the Testing Services' Academic Integrity policy, and test accommodations are available for students with disabilities upon request. The office also helps students with PLA credits such as Advanced Placement (AP) and International Baccalaureate (IB).

Credit Transfer for Associate Degree

(Effective Fall 2013)

In 2011, Texas enacted Tex. Educ. Code Section 61.833, which created reverse transfer in the state. Students must have earned at least 30 credits at a lower-division institution before transferring to a general teaching institution. Once students have transferred, they must earn a cumulative total of 66 credits of course work that meet the requirements for an associate degree. The general teaching institution must contact the student for authorization to release their transcript to the lower-division institution to determine if the student has earned the required courses for an associate degree. Once the lower-division institution determines the student has met all requirements, it may then award the degree.

Education Commission of the States (ECS) Reverse Transfer Information (<https://www.ecs.org/clearinghouse/01/18/77/11877.pdf>)

Texas Education Code Section 61.833 (https://texas.public.law/statutes/tex._educ._code_section_61.833)

Texas Success Initiative

All students entering PVAMU must complete the Texas Success Initiative Assessment 2.0 (TSIA2) unless they meet one of the State of Texas approved TSI exemptions. The State approved exemptions are found at Texas Administrative Code, Title 19, Part 1, Chapter 4, Subchapter C, Rule §4.54 ([https://texreg.sos.state.tx.us/public/readtac\\$ext.TacPage/?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=19&pt=1&ch=4&rl=54](https://texreg.sos.state.tx.us/public/readtac$ext.TacPage/?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=19&pt=1&ch=4&rl=54)).

Students must have valid documentation for a TSI exemption (see below) on file with the Office of Undergraduate Admissions.

TSI Exemptions (Not an exhaustive list)

Test	Combined	Verbal	Math
STAAR (EOC)	n/a	Reading: ENG III (4000) Writing ENG ALG II (4000) III (4000)	
ACT	23	19	19
SAT	n/a	EBRW 480	530
DUAL CREDIT	Reading: Freshmen COMP I or II or HIST, GOVT, or PSYC	Writing: Freshmen COMP I OR II	College Level Math

The TSIA2 consists of two sections, English Language Art and Mathematics. Students who do not meet the college readiness standards for any of the sections may re-take the TSIA2 or participate in a TSIA intervention. Please visit the PVAMU (<https://www.pvamu.edu/student-success/sass/testing/tsia/>) website for the course placement requirements for students not meeting the minimum requirements of the TSIA2, a full list of exemptions and additional information regarding the TSI assessment.

TSIA2 College Readiness Requirements

Subject	College Readiness
ELAR	At least 945 AND Essay Score of 5 OR Below 945, Diagnostic Level 5/6, and 5 Essay

MATHEMATICS 950-990 OR Below 949 and Diagnostic Level 6

For additional information regarding the TSIA 2.0 or to register for the exam please contact

Office of Testing Services

Phone: (936) 261-3627

Email: aetesting@pvamu.edu

Website: www.pvamu.edu/testing (<http://www.pvamu.edu/testing/>)

For questions about TSI Holds or Restrictions, Dual Credit, or submission of the Dual Credit and/or Cross-Institutional Reporting (CIR) form contact:

TSI Office

Phone: (936) 261-3610

Email: TSI@pvamu.edu

Website: www.pvamu.edu/tsi (<https://www.pvamu.edu/student-success/sass/testing/tsia/>)

Admissions Information and Requirements

Undergraduate

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.

Graduate

The Prairie View A&M University Graduate Studies offers Professional Certification, Certificate Endorsements, and multiple Master's and Doctoral programs within our seven (7) Colleges and two (2) Schools: College of Agriculture, Food, and Natural Resources, School of Architecture, College of Arts and Sciences, College of Business, College of Education, College of Engineering, College of Juvenile Justice, College of Nursing, and School of Public and Allied Health. Attending graduate school at Prairie View A&M University will open doors to innovative research projects and opportunities for career development and advancement. Dedicated scholars inspire one another as they work alongside award-winning faculty and administration. All inquiries and supporting documents (original transcript, letters of recommendation, essay) should be emailed to gradadmissions@pvamu.edu or mailed to Office of Graduate Studies, Graduate Admission, P.O. Box 519 – Mail Stop 2800, Prairie View, TX 77446.

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 (<https://goapplytexas.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, which must be submitted by the published deadlines. Admissions deadlines for freshmen, transfers, international students and graduate students can be found on the Office of Admissions (<https://www.pvamu.edu/admissions/application-deadlines/>) website. All first time college freshmen must submit the following items to the Office of Undergraduate Admissions:

1. Completed Apply Texas Application for Admission.
2. A \$40 nonrefundable processing fee which is due for each semester an applicant applies. 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 waivers will not be accepted.**
3. Official high school transcript for all previous work showing completion, or GED certificate showing that the equivalent of a diploma has been earned.
4. An official SAT Reasoning Test or ACT score report. Scores may be sent directly from the testing agency or from your high school. **Faxed reports will not be accepted.**
5. 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 transcripts will not be accepted.**

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 electronically to: Admissions@pvamu.edu or by mail to the Office of Undergraduate Admission Advisory Committee, P. O. Box 519, Mail Stop 1009, Prairie View, Texas 77446.

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.

Regular Freshman Admissions Criteria

- Official high school transcript. Distinguished, Recommended or Foundation with Endorsements High School Program or GED Certificate
- Minimum GPA: 2.8 on a 4.0 Scale
- Official SAT/ACT Minimum Scores: 800 (New SAT - Total Score) or 15 ACT Composite

Admission to the Roy G. Perry College of Engineering

- Official high school transcript. Distinguished, Recommended or Foundation with Endorsements High School Program or GED Certificate
- Minimum GPA: 3.0 on a 4.0 Scale
- Official SAT/ACT Minimum Scores: 950 (New SAT - Total Score) or 18 ACT Composite

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. **Only grades earned in coursework completed at Prairie View A&M University shall be used in determining a student’s grade point average.**

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.

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.

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

1. 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.
2. 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.
3. The two institutions and the student shall attempt to resolve the transfer of the course credit in accordance with Board rules and guidelines.
4. 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.
5. 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.
6. 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.

International Student Admission

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 is required. 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 is 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
 - a. Educational Credential Evaluators (<https://www.ece.org/>), Inc., P.O. Box 514070, Milwaukee, WI 53203-3470, (414) 289-3400
 - b. Span Tran Educational Services (<https://spantran.com/web/>), P.O. Box 7211 Regency Square Blvd. Suite #205, Houston, Texas 77036, (713) 266-8805, or
 - c. World Education Services (www.wes.org (<http://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, May Hall, Room 125, and present all immigration documents for inspection and entry into the record. All immunization records are to be uploaded to MEDProctor (<https://www.medproctor.com/>).

All items on the application must be fully answered. All communications regarding admission to the University should be submitted electronically to: Admissions@pvamu.edu or by mail 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 below. Admissions deadlines for freshmen, transfers, international students and graduate students can be found on the Office of Admissions (<https://www.pvamu.edu/admissions/application-deadlines/>) website.

Application Area	Summer	Fall	Spring
University Village (Housing) ¹ Upperclassman	NA	July 1	December 1
Financial Aid	March 1	March 1	November 1
Freshman Scholarship	NA	March 1	NA
Transfer Scholarship	NA	June 1	NA
University College (Housing) ¹ (Freshman)	NA	July 1	December 1

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 2.8 on a 4.0 scale by the end of the first semester of the junior year.
3. ACT composite score of 15 or an SAT Reasoning Test-I total score of 800 (Combined Critical Reading/Verbal & Math).
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 an 800 (New SAT - Total Score) or an ACT composite 15 and a 2.8 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 a 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 studying for an advanced degree. Similarly, the University Catalog is the official sourcebook to graduate programs at the University. General inquiries about the 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.

Colleges and Schools with Graduate Programs

- College of Agriculture, Food, and Natural Resources
- 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 Juvenile Justice
- College of Nursing
- School of Public and Allied Health

Graduate programs leading to Master's degrees, Professional Certification, Certificate Endorsements, and Doctoral degrees are offered. 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 Houston Center and the College of Nursing in the Houston Medical Center. Selected graduate programs are offered online.

Application Procedures

A completed application for admission is required and must be received by the Office of Graduate Studies at <https://www.pvamu.edu/graduatestudies/> website by the published deadlines. Domestic and International graduate student admission deadlines can be found on the Office of Admission at <https://www.pvamu.edu/admissions/application-deadlines/> website.

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 at www.applytexas.org (<https://catalog.pvamu.edu/admissionsinformationandrequirements/applytograduateschool/www.applytexas.org>) website and payment of a \$50 non-refundable application evaluation charge.

2. A bachelor's degree from a regionally accredited college or university or, for most doctoral programs, a master's degree from a regionally 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 (GPA) of 2.75 on a 4.0 grading scale for regular degree status or 3.0 on the last sixty (60) SCH for regular status.
5. A bachelor's degree documenting a minimum 2.5 cumulative GPA on a 4.0 grading scale for conditional or non-degree seeking graduate student status. Students below a 2.5 GPA who have 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.
6. Three letters of recommendation from persons in the field of the applicant's academic major or area of concentration.
7. A 1000-word statement of purpose describing academic goals and professional interests (or as required by department).

Click here (<http://www.pvamu.edu/graduatestudies/programs/> (<http://www.pvamu.edu/graduatestudies/programs/>)) for Admissions standards for specific graduate programs.

Graduate Certificates

Graduate certificates are offered within the academic departments and may have additional admission requirements. Please visit Academic Programs and Degree Plans for additional information on certificate program requirements at <https://catalog.pvamu.edu/academicprogramsanddegreeplans/> website.

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 (2nd) 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 (2nd) master's degree and application evaluation charge submitted to the Office of Graduate Studies at <https://www.pvamu.edu/graduatestudies/> website;
2. The proposed second (2nd) master's degree must be in a different major field of study than the previous degree;
3. A degree plan is 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 twelve (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. 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. Graduate credit earned at another accredited institution during enrollment in the graduate program at Prairie View A&M University cannot be used to satisfy a certificate/degree requirement at that institution fulfilling the degree requirements 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), the year with grade(s) received, and a copy of the course description(s) from the transfer institution's catalog must be received by the Office of Graduate Studies before transfer credits may be reviewed for approval. Transferred courses must meet the established time limit.

Degrees beyond the second (2nd) master's degree are considered "stand-alone" degrees. Hours from previous degrees will not be accepted toward "stand-alone" degrees.

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 to the applicant of the application receipt and of the completeness or lack of completeness of the application packet. The application packet is forwarded to the identified major program of study.

The department head and dean of the college or school 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 Office for Graduate Studies provides the official notification of admission to the student.

Students can enroll in Prairie View A&M University's graduate programs by meeting one of two (2) regular admissions standards or through special standards described below.

Full Admission for Graduate Study

The criteria required for full admission to graduate study is as follows:

- A bachelor's degree from a regionally accredited college or university.
- Minimum 2.75 cumulative GPA or 3.0 on last sixty (60) SCH.
- Three letters of recommendation from persons in the field of the applicant's academic major or area of concentration.
- A 1000-word statement of purpose describing academic goals and professional interests (or as required by department).
- International Applicant English Proficiency Requirements:
 - TOEFL: 550 paper; 79 internet based; IELTS: 6.0

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, test scores, and/or an application essay. All required elements in these categories must have also been met.

Conditional Admissions for Graduate Study

- A bachelor's degree from a regionally accredited college or university.
- Minimum 2.5 cumulative GPA.
- Three letters of recommendation from persons in the field of the applicant's academic major or area of concentration.
- A 1000-word statement of purpose describing academic goals and professional interests (or as required by department).
- International Applicant English Proficiency Requirements:
 - TOEFL: 550 paper; 79 internet based; IELTS: 6.0

A student with a cumulative GPA below 2.5 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.

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

Graduate Work By a Senior

A University senior who is within twelve (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 (6) semester hours of graduate courses while completing undergraduate degree requirements. Applicants must meet the GPA requirements for Full Admission to Graduate Studies. The combined load of the graduate and the undergraduate courses must not exceed eighteen (18) semester hours. Graduate courses used to meet undergraduate requirements may not be used to meet graduate requirements.

Post-Baccalaureate Graduate Acceptance (Non-Degree Seeking)

Students who hold bachelor's degrees with a minimum cumulative GPA of 2.5 and who wish to take graduate courses or seek graduate-level certification without qualifying for a degree may be admitted as Non-Degree Seeking students. 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 the completion of the first (1st) twelve (12) semester credit hours if the student attained and maintained a 2.75 GPA and is approved by the Dean for Graduate Studies.

Admission to an Accelerated Bachelor's-to-Doctorate 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 bachelor's and/or master's degrees.

These programs are designed to also help reduce 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.

Doctoral students in the Clinical Adolescent Psychology doctoral program will receive a master's after meeting the program requirements. Students start seeing clients during the second (2nd) year and the clinic will 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 cumulative GPA of 2.5 and 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 (1) TERM ONLY and requires a letter of good standing and an official transcript from the current institution. Special permission must be given by the Dean for Graduate Studies if a second term of Transient status is sought. After two (2) terms in Transient status, the student must submit a complete admissions application packet for consideration as a degree-seeking student.

Concurrent Study for Two (2) 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. However, a graduate student within three (3) to six (6) semester hours of completing the first (1st) graduate degree requirements may seek approval to enroll in up to six (6) semester hours of graduate courses applicable to the second (2nd) degree. Courses completed in this category must be applicable to the second (2nd) degree ONLY. Total enrollment for the term may not exceed nine (9) semester credit hours.

The first (1st) degree must be completed in its entirety before additional work may be taken for the purpose of meeting requirements for the second (2nd) degree. The format and requirements for a request to pursue two (2) different graduate degrees concurrently may be obtained from the Office of Graduate Studies.

Second Master's Degree

Students that wish to pursue a second (2nd) master's degree must meet all Full Admission criteria as defined by the degree program, and obtain permission from the Dean for Graduate Studies 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 to master's or doctoral status. Instead, he/she may be considered for admission as an undergraduate or post-baccalaureate student. 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.

Colleges and departments often determine additional qualifications for admission to doctoral programs. The admitting department should be contacted for details regarding admission types.

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

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 an advisor.

Colleges and School:

- College of Agriculture, Food, and Natural Resources
- School of Architecture
- Marvin D. and June Samuel Brailsford College of Arts & Sciences
- College of Business
- Whitlowe R. Green College of Education
- Roy G. Perry College of Engineering
- College of Juvenile Justice
- College of Nursing
- School of Public and Allied Health
- Undergraduate Studies

Professional Programs

- Honors Program
- University Medical Academy

College of Agriculture, Food, and Natural Resources

The College of Agriculture, Food, and Natural Resources 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 Natural Resources provide learning opportunities that prepare students to respond effectively to complex social issues relating to the food, agricultural, 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, 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 the implementation of the land grant mission functions of teaching/learning, research/discovery, and service/engagement in the agricultural, food, and natural resource sciences. The College maintains international connections through study abroad and research activities.

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

Instructional Organization

Program	Degree Offered
Agriculture	BSAG
Human Nutrition and Food	BSDIET

Natural Resources and Environmental Sciences	MS
Nutrition	MS

Academic Standards and Progress

Students enrolled in an undergraduate degree program in the College of Agriculture, Food, and Natural Resources 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. Students interested in gaining membership in these specialty organizations should consult with the major advisor.

The **Agri-Business Club** provides students in the college with opportunities to gain further knowledge of agricultural industries and hands-on experience in the agricultural industry management practices by providing experiential learning opportunities.

The **Kappa Beta Epsilon Chapter of Kappa Omicron Nu (KONu)**, National Human Sciences 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 by merging two National Home Economics Honor Societies, Omicron Nu and Kappa Omicron Phi. The mission of Kappa Omicron Nu is to promote empowered leaders through excellence in scholarship, leadership and research. Students are eligible for membership upon satisfying specific criteria as outlined by the constitution of the organization.

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.

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 the pre-vet curriculum.

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 and San Antonio Stock Show and Rodeos, 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.

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.

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.

The **CAHS Garden Club** promotes student learning, service, volunteer, and outreach activities by planting vegetables in the fall and spring garden areas. The student-led group provides training in seed and plant selection, planting, irrigation, fertilization, cultivation, insect scouting, pest management, harvesting, and marketing of fresh produce. Membership is open to all students in the University, volunteers are welcome to participate in gardening activities, and volunteers can receive credit for their service hours.

Department of Agriculture, Nutrition, and Human Ecology

Purpose and Goals

The Bachelor of Science in Agriculture program prepares graduates to function as entry-level professionals in various areas, including food, agriculture, natural resource marketing, production, distribution, and processing. The Bachelor of Science in Agriculture degree program offers a generalist emphasis that serves as the foundation for diverse careers and a springboard for advanced study in agriculture, natural resource sciences, and related fields. Concentrations are available in Agribusiness, Plant and Soil Sciences, Natural Resources and Environmental Sciences, and Animal and Food Sciences. These concentrations guide students in defining an area for future specialization they can attain at the graduate level and through professional

practice. The emphasis on Animal and Food Sciences may serve as pre-professional curricula for veterinary medicine. In consultation with their advisors, students should select additional courses to qualify for professional veterinary medicine research.

Students enrolled in agriculture are afforded hands-on experience through laboratory, field exercises, cooperative education, and summer job assignments. Students completing the program can demonstrate varied skills in many areas. Faculty provide guidance and support to foster students' personal development and leadership skills essential for effective professional practice in the chosen field of practice.

The Human Nutrition and Food program provides quality nutrition education to students who want to pursue a dietetics career. The curriculum provides an avenue toward students' eligibility 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> (<http://www.eatright.org/>).

The College of Agriculture, Food, and Natural Resources shall serve to reinforce and strengthen the land grant mission of the University by implementing programs in the agricultural, food, nutrition, and natural resource sciences that 1) highlight learning, discovery, and engagement; 2) focus on matters related to the interactive roles of individuals, 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 and Dietetics programs provide learning opportunities that prepare students to respond effectively to complex social issues relating to the food, agricultural, and natural resource sciences through innovative strategies in the delivery of classroom, laboratory, and experiential learning activities. The programs prepare graduates for discovery and engagement in a diverse global labor force and for advanced graduate and professional school studies. These activities are conducted within the Department of Agriculture, Nutrition, and Human Ecology structure.
2. Research activities to conduct basic and applied research in the agricultural, food, 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, emphasizing historically unserved and underserved individuals. 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 the implementation of the land grant mission functions of teaching/learning, research/discovery, and service/engagement in the agricultural, food, and natural resource sciences. These activities are conducted primarily within the structure of study abroad and research opportunities.

The graduate program emphasizes the preparation of students for teaching, research, and public service in colleges and universities, in social and public service agencies, and 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 professionally as agents of change. The program's specific goals provide opportunities for enhanced professional competency development and the development of an academic and stylistic model for additional graduate study in various academic specialties.

Agriculture Minor Requirements

Select 12 SCH lower-division courses plus 12 SCH upper-division courses in consultation with an advisor.

Human, Nutrition and Food Minor Requirements

HUNF 1322	Nutrition and Wellness	3
HUNF 2363	Food Service Systems	3
HUNF 2365	Food Principles and Meal Management	3
HUNF 2366	Food Systems Management	3
HUNF 3361	Nutrition Throughout the Lifecycle	3
HUNF 4369	Community Nutrition and Health	3
Total Hours		18

Pre-Veterinarian Minor Requirements

Students pursuing a Bachelor of Science in Agriculture with a concentration in Animal and Food Sciences may choose to pursue the Pre-Veterinarian minor to meet additional requirements for Veterinary Medicine school.

BIOL 1308	Biology for Non-Science Major I	3
BIOL 1502	General Biology	5
BIOL 3404	Immunology	4
BIOL 4201	Medical Terminology	2
CHEM 2203	Organic Chemistry Lab I	2
CHEM 2204	Organic Chemistry Lab II	2
CHEM 4204	Biochemistry Laboratory	2
MATH 1342	Elementary Statistics	3

Total Hours **23**

Graduate Certificate in Dietetics Requirements

The Graduate Certificate in Dietetics is offered for individuals accepted for matriculation in the Dietetic Internship. The following courses are required as components of the certificate program:

HUSC 5632	Advanced Practice in Dietetics I	6
HUSC 5635	Advanced Practice in Dietetics II	6
HUSC 5335	Dietetic Seminar I	3
HUSC 5331	Dietetic Seminar II	3

The Dietetic Internship Program 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>.

Agricultural Economics Courses

AGEC 3321 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: (AGRI 2321 or AGECE 2213) and (AGECE 3322 (may be taken concurrently) or AGECE 3223 (may be taken concurrently)).

AGEC 3322 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: (AGECE 3321 (may be taken concurrently) or AGECE 3213 (may be taken concurrently)) and (MATH 1113 or MATH 1314).

AGEC 3325 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: (AGRI 2317 or AGECE 1233 or ECON 2113 or ECON 2302) and (MATH 1113 or MATH 1314).

AGEC 3399 Independent Study: 1-3 semester hour.

Reading, research and/or field work on selected topics.

AGEC 4322 Agribusiness Management: 3 semester hours.

Economic and business principles applied to the organization and operation of farms and ranches, and other agri-business industries.

Prerequisites: (AGRI 2317 or AGECE 1233 or ECON 2113 or ECON 2302) and (MATH 1113 or MATH 1314).

AGEC 4323 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: ((AGECE 2317 or AGECE 1233) or (ECON 2113 or ECON 2302)) and (MATH 1113 or MATH 1314).

AGEC 4325 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: ((AGECE 1233 or AGRI 2317) or (ECON 2113 or ECON 2302)) and (MATH 1113 or MATH 1314).

AGEC 4399 Independent Study: 1-3 semester hour.

Readings, research and/or field work on selected topics.

AGEC 5321 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.

Agricultural Engineering Courses

AGEG 4342 Farm Drainage: 3 semester hours.

Land drainage: terracing, gully control, irrigation, and land reclamation.

Ag and Human Resources Courses

AGHR 3379 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 3699 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 4341 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 4399 Independent Study: 3 semester hours.

Readings, research and/or field work on selected topics. Prerequisite: Advisor consent.

Agriculture Courses

AGRI 1301 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: (AGRI 1370 or AGRO 1703) and (AGRO 2633 or AGRI 2363).

AGRI 1311 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: AGRI 1319 or ANSC 1513.

AGRI 1319 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.

AGRI 1327 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: (AGRI 1319 or ANSC 1513) and (AGRI 2351 (may be taken concurrently) or ANSC 2513) and (AGRI 1311 (may be taken concurrently) or ANSC 2533).

AGRI 1330 Land Grant System and Global Food Security: 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.

AGRI 1331 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.

AGRI 1341 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.

AGRI 1370 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.

AGRI 2317 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.

AGRI 2321 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: (AGRI 2317 or AGECE 1233) and (AGRI 2322 (may be taken concurrently) or AGECE 2223 (may be taken concurrently)).

AGRI 2322 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: (AGECE 1233 or AGRI 2317) and (AGECE 2213 or AGRI 2321).

AGRI 2342 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.

AGRI 2351 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: (AGRI 1319 or ANSC 1513) and (AGRI 1327 (may be taken concurrently) or ANSC 2523) and (AGRI 1311 (may be taken concurrently) or ANSC 2533).

AGRI 2354 Diseases and Sanitation: 3 semester hours.

Clinical studies of the most common livestock diseases embracing anamnesis, etiology, symptoms, diagnosis, therapeutics, and prophylaxis.

Prerequisites: (AGRI 1319 or ANSC 1513) and (AGRI 2351 (may be taken concurrently) or ANSC 2513) and (AGRI 1311 (may be taken concurrently) or ANSC 2533).

AGRI 2360 Environmental Soil Science: 3 semester hours.

An introduction to soils, its components and its relationship the environment. The importance of soils to man, animals and plants. Import 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.

AGRI 2363 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: AGRI 1370 or AGRO 1703.

AGRI 2373 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: AGRI 1370 or AGRO 1703.

Agronomy Courses

AGRO 3362 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 or AGRO 2360 and (AGRO 3633 (may be taken concurrently) or AGRO 3363 (may be taken concurrently)) and (AGRO 3371 (may be taken concurrently) or AGRO 3713 (may be taken concurrently)).

AGRO 3363 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 or AGRO 2360 and (AGRO 3623 (may be taken concurrently) or AGRO 3362 (may be taken concurrently)) and (AGRO 3713 (may be taken concurrently) or AGRO 3371 (may be taken concurrently)).

AGRO 3364 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: (AGRI 2360 or AGRO 2603) and (AGRO 3373 (may be taken concurrently) or AGRO 3733).

AGRO 3371 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 or AGRI 1370.

AGRO 3373 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: AGRI 1370 or AGRO 1703.

AGRO 3399 Independent Study: 1-3 semester hour.

Readings, research and/or field work on selected topics.

AGRO 4361 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 3362 or AGRO 3623 and (AGRO 3363 or AGRO 3633) and (AGRO 3364 or AGRO 3643).

AGRO 4362 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 2360 or AGRO 2603 and (AGRI 1301 or AGRO 2613).

AGRO 4399 Independent Study: 1-3 semester hour.

Readings, research and/or field work on selected topics.

AGRO 5366 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 5375 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 5379 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.

Animal Science Courses

ANSC 2255 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 3350 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 3351 Anatomy and Physiology: 3 semester hours.

Comparative approach, anatomically and physiologically of the basic systems of the domestic animals.

ANSC 3352 Meat Science: 3 semester hours.

Methods of slaughtering farm animals, processing, curing preservation and storage of meats and products.

Prerequisites: ANSC 1513 or AGRI 1319.

ANSC 3399 Independent Study: 3 semester hours.

Readings, research and/or field work on selected topics.

ANSC 3451 Anatomy and Physiology: 0-4 semester hour.

Comparative approach, anatomically and physiologically of the basic systems of domestic animals.

Prerequisites: AGRI 1319 or ANSC 1513.

ANSC 3699 Independent Study: 1-6 semester hour.

Readings, research and/or field work on selected topics.

ANSC 4353 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 4399 Independent Study: 3 semester hours.

Readings, research and/or field work on selected topics.

ANSC 4499 Independent Study: 1-4 semester hour.

Readings, Research and/or field work on selected topics.

Food Science Courses

FDSC 3358 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 3359 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 4357 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.

Human Development Family Courses

HDFM 2351 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 2353 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 2355 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 3350 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 3351 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 3352 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.

Human Nutrition Food Courses

HUNF 1130 Introduction to Dietetics: 1 semester hour.

Students will be introduced to the profession of dietetics. The history of dietetics, career options, professional development (dietetics portfolio), the Academy code of ethics, standards of practice, the legislative process, and professional resources will be discussed.

HUNF 1322 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 2353 Intermediate Nutrition: 3 semester hours.

Introductory 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 1322 or HUSC 1343.

HUNF 2363 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 2365 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 1322 or HUSC 1343.

HUNF 2366 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 3360 Nutritional Biochemistry: 3 semester hours.

A study of the biochemical basis of nutrition, the physiochemical properties of nutrients, and other essential biochemical and their roles in physiological and metabolic processes.

Prerequisites: HUNF 2533.

HUNF 3361 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 1322 or HUSC 1343.

HUNF 3362 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 2303 or CHEM 2033 and (CHEM 2203 or CHEM 2032) and (HUNF 2365 or HUNF 2653).

HUNF 3363 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: HUNF 2353 or HUNF 2533.

HUNF 3364 Food and Culture: 3 semester hours.

Food and Culture explores the connections between what we eat and who we are through a cross-cultural study of how personal and social identities are formed via food production, preparation, and consumption.

Prerequisites: HUNF 1301 or HUNF 1130.

HUNF 3365 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 2353 or HUNF 2533.

HUNF 3367 Nutritional Assessment: 3 semester hours.

The course provides an in-depth to the purpose, concepts, methods, and scientific basis for assessment of nutritional status for individuals and groups. Students will have the opportunity to apply nutritional assessment principles and methods discussed in class in a supervised setting.

Prerequisites: HUNF 2533 and MATH 1113.

HUNF 3399 Independent Study: 3 semester hours.

Readings, research and/or field work on selected topics.

HUNF 4330 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 4347 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 3365 or HUNF 3653 and (HUNF 4366 or HUNF 4663).

HUNF 4360 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 3362 or HUNF 3623.

HUNF 4361 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 1342 or MATH 2003.

HUNF 4366 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 3361 or HUNF 3613) and (HUNF 3365 or HUNF 3653).

HUNF 4367 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 4366 or HUNF 4663.

HUNF 4369 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 1322 or HUSC 1343 and (HUNF 3361 or HUNF 3613).

HUNF 4399 Independent Study: 3 semester hours.

Readings, research and/or field work on selected topics.

Natural Resources and Environmental Sciences Courses

NRES 5101 Seminar: 1 semester hour.

Two presentations to be made during the semester; the first presentation will be at the beginning of the semester stating the proposal for master's thesis/ internship and second will be at the end of the semester to state accomplishment.

NRES 5202 Advanced Research Methods in NRES: 2 semester hours.

Literature review, understand the research methods, learn to write proposals, data collection (including in-situ), data analysis and methods, presenting results, learn to present (oral and poster) through a project work, writing report.

NRES 5303 Research Statistics in NRES: 3 semester hours.

Analysis of variance, regression, multivariate analysis, multivariate data, visualization, principal components analysis, multidimensional scaling, factor analysis, cluster analysis, confirmatory factor analysis and structural equation models by statistical computer packages.

Prerequisites: MGMT 3301 or MGMT 3013.

NRES 5305 Advanced GIS and RS for Environmental Management: 3 semester hours.

Advanced GIS and RS components for natural resources and environmental management such as landscape and water resources management.

It covers to create, store, manage, query, present and view spatial and non-spatial natural resources and environmental datasets. It includes how accurately and precisely natural resources can be mapped and measured from satellite remote sensing using remote sensing GIS and RS tools. It also includes collecting satellite image, spatial data, to learn its application in industries such as emergency response, meteorology, water resources, land use, agriculture, forest, and urban planning.

Prerequisites: GEOG 2311 or GEOG 2113.

NRES 5310 Economic Analysis of Natural Resource Management: 3 semester hours.

This course focuses on developing an understanding of an economic framework (economic concepts, tools, and techniques) for assessing natural resource management projects, application of the framework to the management of various natural resources.

NRES 5311 Human Dimensions of Natural Resource Management: 3 semester hours.

Human - environment interactions; environmental justice; human values, beliefs, and attitudes regarding the environment; communication and behavior change strategies; landscape perception and attitudes; resource-dependent communities; public involvement; conflict management; and future issues.

NRES 5312 Resources and Environmental Policy: 3 semester hours.

This course focuses on exploration of institutional and policy dimensions of natural resource development, management, allocation, markets and pricing, focusing on their environmental impacts. Emphasis on policy analysis using case studies and empirical findings.

NRES 5322 Environmental Hydrology: 3 semester hours.

Hydrologic cycle, water resources, and society; hydrologic processes; hydrological effects of climatic change; stream processes; open channel flow, hydraulic control structures; soil conservation and sediment budgets; hydrology of forests and wetlands; hydrogeology; human impacts on water resources; fundamentals of remote sensing and GIS for hydrologic application; practical exercises on conducting and reporting hydrologic studies.

Prerequisites: AGRO 4362.

NRES 5323 Hydrologic Processes in Soils: 3 semester hours.

An overview of the basics of soil physical properties, hydrologic processes in soil including water flow, solute movement, and gaseous transport in the variably saturated (saturated/unsaturated) zones, analyze and estimate soil hydraulic properties using public domain packages (RETC and Rosetta), practical and theoretical exercises using HYDRUS-1D.

Prerequisites: AGRO 3364.

NRES 5324 Advanced Watershed Management: 3 semester hours.

Hydrologic cycle, watershed characteristics, precipitation and interception, evapotranspiration, soil water storage, infiltration, runoff process, soil properties, hydrologic methods, wetlands hydrology and management, riparian area management, erosion, tropical watershed management, socioeconomic considerations in watershed management, water quality, and watershed planning and protection. Hand on experience in data handling, presentation, and analysis. Gain experience in critiquing research work and publications.

Prerequisites: NRES 5323.

NRES 5325 Advanced Groundwater Hydrology: 3 semester hours.

Overview of groundwater flow and analytical water flow solutions; theory and practice of groundwater modeling; basic concepts and governing equations of fluid flow in porous media; computational algorithms of solving the equations; model construction, simulation, and calibration using state-of-the-art modeling tools; theory of solute transport and modeling; modeling report, archive, and review; beyond basic modeling concepts.

Prerequisites: NRES 5323.

NRES 6600 Thesis: 6 semester hours.

Independent research work on a specific area in Natural Resources Environmental Sciences under the supervision of a thesis advisor. All course work toward the degree must be completed.

Prerequisites: NRES 5324 and NRES 5325.

Nutrition Courses

NUTR 5100 Seminar in Nutrition: 1 semester hour.

This course will place a major emphasis on the current development in nutrition and dietetics. Reading, discussion, reports, case studies and presentations focusing on the professional practice of nutrition and dietetics. Critical thinking activities related to research seminars in human nutrition.

NUTR 5300 Research Methods: 3 semester hours.

This course will teach students how to develop, implement and analyze nutrition and public health research, in order to increase their skills as dietitians/nutritionists, and public health scientists.

Prerequisites: MATH 2003 or MATH 1342 or HUNF 4613 or HUNF 4361.

NUTR 5301 Food and Nutrition Policy: 3 semester hours.

This class will investigate and discuss the roles and interests of federal agencies, state agencies, private/public organizations, and the media relevant to U.S. food and nutrition policy. A comparison and contrast of international perspectives on food and nutrition policies and programs used to support global nutrition and health promotion will be examined. Topics covered will include discussions on healthy diet, healthy food environments, food security, sustainable food systems, and food deserts. Emphasis will be given to the contexts in which policies are developed, interaction of stakeholders, translation of policies into programs, the intended and unintended nutritional impacts, and an assessment of forces hindering or helping the policy implementation.

NUTR 5302 Nutrition Informatics: 3 semester hours.

This course examines how the implementation of electronic health record (EHR) and health information technology (HIT) transformed nutrition delivery documentation, follow up and evaluation. Nutrition Informatics covers the retrieval, organization, storage and use of data for food and nutrition problems and decision making.

NUTR 5303 Biostatistics: 3 semester hours.

This course teaches the statistical methods and principles necessary for understanding and interpreting data used in nutrition, health care, public health, and epidemiology. Topics include descriptive statistics, inferential statistics, graphical data summary, sampling, statistical comparison of groups (t-tests, chi-squared, ANOVA), correlation, and regression. Students will learn via lecture, group discussions, critical reading of published research, and analysis of data using SPSS, SAS, and STATA.

Prerequisites: MATH 2003 or MATH 1342.

NUTR 5310 Nutrition Assessment: 3 semester hours.

This course will examine the types of nutritional assessment systems used for research, clinical evaluations, and community estimates for decision making. The use of the most frequently encountered bio markers, indices and indicators of nutritional status and their interpretation will also be covered.

Prerequisites: HUNF 3603 or HUNF 3360 and (HUNF 3673 or HUNF 3367).

NUTR 5311 Nutrition and Public Health: 3 semester hours.

The course is designed to provide students with understanding and competencies in assessing the factors which influence the nutritional status of the population; in identifying the resources in the community available to address nutrition and health problems; in conducting a community assets and needs assessment; and engaging the community in problem-solving. Also addressed are issues related to the changing nature of general health care and public health nutrition services

Prerequisites: HUNF 3673 or HUNF 3367 and (HUNF 4693 or HUNF 4369).

NUTR 5312 Social and Cultural Influences on Nutrition: 3 semester hours.

This course explores connections between what we eat and who we are through cross-cultural study of how personal and collective identities, social relations, and economic inequalities are formed and maintained via practices of food production, preparation, and consumption.

NUTR 5313 Nutrition & Metabolism I: 3 semester hours.

This course covers nutritional biochemistry; digestion, absorption, transport, function, regulation, and metabolism of macronutrients; relationships between dietary intake, metabolic pathways, and the pathogenesis of health.

NUTR 5314 Nutritional Epidemiology: 3 semester hours.

This course will cover research strategies in nutritional epidemiology and methods of dietary assessment using data on food intake, biochemical indicators of diet, and measures of body composition and size.

NUTR 5315 Global Nutrition: 3 semester hours.

The course explores the impact of nutrition and health disparities internationally resulting from inadequate nutrition throughout the lifecycle. Student will evaluate the international health and nutrition organizations, policies and interventions. The increased role of the dietitian in creating and implementing international interventions and affecting public health policy will be explored.

NUTR 5320 Food Nutrition & Communication: 3 semester hours.

The course explores current trends and the use of social media as an effective tool in dietetics practice. The course gives the students an opportunity to practice food styling and writing a supportive article for possible submission to Today's Dietitian.

NUTR 5322 Nutrition Education & Counseling: 3 semester hours.

Students preparing for careers in nutrition and dietetics are expected to gain competency for professional practice in a wide range of disciplines and be able to translate nutrition sciences effectively into plain language for people who want to change their eating behaviors, lifestyle, and energy expenditure to improve their health. This course will increase and refine the student's pre-professional experience in helping people change their eating habits for improving their health and reducing the risk of chronic diseases.

NUTR 5323 Nutrition & Metabolism II: 3 semester hours.

This course covers nutritional biochemistry; digestion, absorption, transport, function, regulation, and metabolism of micronutrients; relationships between dietary intake, metabolic pathways, and the pathogenesis of health.

Prerequisites: NUTR 5313.

NUTR 5326 Capstone Project: 3 semester hours.

Independent final paper exploring a topic of interest, emerging from a specific area in Nutritional Sciences under the supervision of a faculty advisor.

NUTR 5633 Advanced Practicum in Dietetics: 6 semester hours.

Preplanned experience at the professional level in dietetic administration, food service management, clinical and therapeutic nutrition and community and public health nutrition.

NUTR 6306 Thesis: 3 semester hours.

Independent research work on a specific area in Nutritional Sciences under the supervision of a thesis advisor.

Department of Agriculture, Nutrition, and Human Ecology, Undergraduate

Purpose and Goal

The Bachelor of Science in Agriculture program prepares graduates to function as entry-level professionals in various areas, including food, agriculture, natural resource marketing, production, distribution, and processing. The program offers a generalist emphasis that serves as the foundation for diverse careers and a springboard for advanced study in agriculture, natural resource sciences, and related fields. Concentrations are available in Agribusiness, Plant and Soil Sciences, Natural Resources and Environmental Sciences, and Animal and Food Sciences. These concentrations guide students in defining an area for future specialization they can attain at the graduate level and through professional practice. The emphasis on Animal and Food Sciences may serve as pre-professional curricula for veterinary medicine. In consultation with their advisors, students should select additional courses to qualify for professional veterinary medicine research.

Students enrolled in agriculture are afforded hands-on experience through laboratory, field exercises, cooperative education, and summer job assignments. Students completing the program can demonstrate varied skills in many areas. Faculty provide guidance and support to foster students' personal development and leadership skills essential for effective professional practice in the chosen field of practice.

The Human Nutrition and Food program provides quality nutrition education to students pursuing careers in dietetics and nutrition. The 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> (<http://www.eatright.org/>).

Instructional Organization

The College of Agriculture, Food, and Natural Resources offers the following undergraduate degree programs:

Program	Degree Offered
Agriculture	BSAG
Human Nutrition and Food	BSDIET

Agriculture, BSAG

Bachelor of Science in Agriculture Degree Program Requirements

The degree program in agriculture 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 to complete the requirements for the degree, BS in Agriculture.

Degree Program Requirements

Complete Core Curriculum Listing at <https://catalog.pvamu.edu/universitycorecurriculum/>

Core Curriculum 42 Credit Hours

Communication (Select Two)	6
Mathematics (Select One)	3

Life and Physical Sciences (Select Two) ¹	6
Language, Philosophy, and Culture (Select One)	3
Creative Arts (Select One)	3
American History (Select Two)	6
Government/Political Science	6
POSC 2305 American Government	
POSC 2306 Texas Government	
Social and Behavioral Sciences (Select One)	3
Component Area Option One (Select One)	3
Component Area Option Two (Select One)	3
Agriculture Program Requirements	
AGRI 1319 General Animal Science	3
AGRI 1331 Agricultural Science and Technology	3
AGRI 1341 Fundamentals of Agricultural Engineering	3
AGRI 1370 Crop Science	3
AGRI 2317 Fundamentals of Agricultural Economics	3
AGRI 2321 Marketing Agricultural Products	3
AGRI 2351 Animal Production and Marketing	3
AGRI 2354 Diseases and Sanitation	3
AGRI 2360 Environmental Soil Science	3
AGRI 2363 Forage and Pasture Management	3
AGEC 3322 Agricultural Financial Analysis	3
AGHR 4341 Special Topics	3
Concentration	42
Total Hours	120

¹ Students preparing for Veterinary Medicine School are required to take PHYS 1301 and PHYS 1302 to satisfy the Life and Physical Sciences core requirement.

Concentration Options

Agribusiness

AGRI 2322 Food Distribution Systems	3
AGEC 3321 Agricultural Policy	3
AGEC 4322 Agribusiness Management	3
AGEC 4323 Land and Resource Economics	3
AGEC 4325 Agricultural Prices	3
ACCT 2301 Principles of Accounting	3
ECON 4321 Intermediate Microeconomic Analysis	3
MATH 1342 Elementary Statistics	3
MGMT 1301 Introduction to Business	3
MRKT 3310 Principles of Marketing	3
Targeted Electives ¹	12
Total Hours	42

¹ Targeted electives recommended for Agribusiness (Any 12 SCH) AGRI 1301, AGRI 2363, AGRO 3363, AGRO 3371, AGRI 1327, ANSC 3350

Plant and Soil Sciences

AGRI 1301 Natural Resource Conservation Management	3
AGRI 2373 Principles of Crop Production	3
AGRO 3362 Soil Morphology and Classification	3
AGRO 3363 Soil Fertility and Fertilizers	3
AGRO 3364 Soil and Water Management	3

AGRO 3371	Gen Entomology	3
AGRO 3373	Plant Pathology	3
AGRO 4361	Soil Microbiology	3
AGRO 4362	Environmental Science	3
GEOG 2311	Introduction to Geographic Information System	3
Targeted Electives ¹		12

Total Hours **42**

¹ Targeted electives recommended for Plant & Soil Sciences (Any 12 SCH) AGRI 2322, AGECE 3321, AGECE 4322, AGRI 1327, ANSC 3350, ANSC 3352

Animal and Food Sciences ¹

AGRI 1311	Dairy Science	3
AGRI 1327	Poultry Science	3
ANSC 2255 or BIOL 1501	Poultry Tech & Marketing ² General Biology	2
ANSC 3350	Animal Nutrition	3
ANSC 3451	Anatomy and Physiology	4
ANSC 3352	Meat Science	3
ANSC 4353	Breeding/Genetics	3
FDSC 3358 or BIOL 1501	Food Quality Assurance and Sanitation ² General Biology	3
FDSC 3359 or CHEM 1303	Food Bacteriology ² General Inorganic Chemistry I	3
FDSC 4357	Food Processing and Engineering	3
Targeted Electives ^{3,4}		12

Total Hours **42**

¹ Students preparing for Veterinary Medicine School are required to take PHYS 1301 and PHYS 1302 to satisfy the Life and Physical Sciences core requirement.

² Students preparing for Veterinary Medicine School must replace ANSC 2255 and FDSC 3358 with BIOL 1501 **and** replace FDSC 3359 with CHEM 1303.

³ Targeted electives for students who desire to attend Veterinary Medicine School: CHEM 1304, CHEM 2303, CHEM 2304, and CHEM 4303.

⁴ Targeted electives recommended for Non-Veterinary Medicine School (Any 12 SCH): AGRI 1301, AGRI 2322, AGECE 3321, AGECE 4322, AGRO 3371, AGRO 4362.

Natural Resources and Environmental Science

AGECE 3321	Agricultural Policy	3
AGECE 4323	Land and Resource Economics	3
AGECE 4342	Farm Drainage	3
AGRI 1301	Natural Resource Conservation Management	3
AGRO 3362	Soil Morphology and Classification	3
AGRO 3363	Soil Fertility and Fertilizers	3
AGRO 3364	Soil and Water Management	3
AGRO 4362	Environmental Science	3
GEOG 2311	Introduction to Geographic Information System	3
SOCE 4314	Environmental Sociology	3
Targeted Electives ¹		12

Total Hours **42**

¹ Targeted electives recommended for Natural Resources and Environmental Sciences (Any 12 SCH) AGECE 4322, AGRI 1327, AGRI 2322, AGRI 2373, AGRO 3362, AGRO 3371

Agricultural Sciences - Teaching

CUIN 3300	Educational Foundations	3
CUIN 3301	Educational Psychology	3
CUIN 4310	Instructional Planning and Assessment	3
CUIN 4311	Instructional Methodology and Classroom Management	3
CUIN 4682	Student Teaching Secondary II	6
ENGL 2314	Advanced Composition	3
AGEC 3321	Agricultural Policy	3
AGRI 1301	Natural Resource Conservation Management	3
ANSC 3350	Animal Nutrition	3
Targeted Electives ¹		12
Total Hours		42

¹ Targeted electives recommended for Agricultural Sciences - Teaching (Any 12 SCH) AGRI 1327, AGRI 2322, AGRI 2373, AGECE 4322, AGRO 3371, AGRO 4362, ANSC 3352

Bachelor of Science in Agriculture Degree Sequence

Core: <https://catalog.pvamu.edu/universitycorecurriculum/> (<https://catalog.pvamu.edu/universitycorecurriculum/>)

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Communication Core		3 Communication Core	3
Mathematics Core		3 Government/Political Science Core	3
AGRI 1331		3 POSC 2305	
AGRI 1319		3 Component Area Option One Core	3
AGRI 2317		3 Life and Physical Sciences Core	3
		Social and Behavioral Sciences Core	3
		AGRI 1370	3
Total		15 Total	18

Total Hours: 33

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours
AGRI 1341		3 AGRI 2321	3
AGRI 2360		3 Government/Political Science Core	3
AGRI 2351		3 POSC 2306	
American History Core		3 Life and Physical Sciences Core	3
Creative Arts Core		3 American History Core	3
		Language, Philosophy, and Culture Core	3
		Component Area Option Two Core	3
Total		15 Total	18

Total Hours: 33

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
AGEC 3322		3 AGRI 2354	3
AGRI 2363		3 Concentration Requirement	3
Concentration Requirement		3 Targeted Elective I	3
Concentration Requirement		3 Targeted Elective II	3
Concentration Requirement		3 Targeted Elective III	3
Total		15 Total	15

Total Hours: 30

Senior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
AGHR 4341		3 Concentration Requirement	3
Concentration Requirement		3 Concentration Requirement	3
Concentration Requirement		3 Concentration Requirement	3
Concentration Requirement		3 Targeted Elective IV	3
Total		12 Total	12

Total Hours: 24

Name	Unit
Total Semester Credit Hours: 120	

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

Degree Skills

1. Problem analysis and resolution
2. Oral and written communication
3. Global/cultural fluency

Concentration Skills

1. Business management
2. Scientific inquiry
3. Natural resource management

Co-curricular and Extracurricular Skills

1. Leadership
2. Professionalism
3. Organizational skills

Human Nutrition and Food, BSDIET

Bachelor of Science in Dietetics with a major in Human Nutrition and Food Degree Requirements

The BS degree in Dietetics prepares students for careers in dietetics and nutrition and provides an avenue toward students' eligibility to become registered dietitians. The Didactic Program in Dietetics (DPD) at Prairie View A&M University is accredited by the Accreditation Council in Nutrition and Dietitians (ACEND), 120 South Riverside Plaza, Suite 2000, Chicago Illinois 60606-6695; Telephone 800-877-1600 ext. 5400. Website <http://www.eatright.org>.

Verification Statement

To receive a verification statement students must satisfy the following requirements;

1. Complete the requirements of the degree.
2. Graduate with at least a 3.0 GPA in all major and support area required courses.
3. Obtain a grade of 'C' or better in each course.
4. If courses are substituted or completed as an independent study in the department, the student must take and complete an examination covering the relevant knowledge and competencies in those areas.

Once all of the above are met, a verification statement will be issued after the degree is conferred.

Degree Program Requirements

Complete Core Curriculum Listing at <https://catalog.pvamu.edu/universitycorecurriculum/>

Core Curriculum 42 Credit Hours

Communication		6
ENGL 1301	Freshman Composition I	
ENGL 1302	Freshman Composition II	
Mathematics		3
MATH 1314	College Algebra	
Life and Physical Sciences		6
CHEM 1303	General Inorganic Chemistry I	
BIOL 2401	Anatomy and Physiology I	
Language, Philosophy, and Culture (Select One)		3
Creative Arts (Select One)		3
American History		6
HIST 1301	United States History I	
HIST 1302	United States History II	
Government/Political Science		6
POSC 2305	American Government	
POSC 2306	Texas Government	
Social and Behavioral Sciences		3
SOCG 1301	General Sociology	
or PSYC 2301	General Psychology	
Component Area Option One		3
ECON 1301	Fundamentals of Economics in a Global Society	
Component Area Option Two Core		3
COMP 1300	Digital Communication	
Major Requirements		
HUNF 1130	Introduction to Dietetics	1
HUNF 1322	Nutrition and Wellness	3
HUNF 2353	Intermediate Nutrition	3
HUNF 2363	Food Service Systems	3
HUNF 2365	Food Principles and Meal Management	3
HUNF 2366	Food Systems Management	3
HUNF 3360	Nutritional Biochemistry	3
HUNF 3361	Nutrition Throughout the Lifecycle	3
HUNF 3363	Advanced Nutrition	3
HUNF 3364	Food and Culture	3
HUNF 3365	Nutrition and Disease	3
HUNF 3367	Nutritional Assessment	3
HUNF 4330	Human Nutrition and Food Practicum	3
HUNF 4347	Nutrition Counseling	3
HUNF 4360	Physiochemical Aspects of Food	3
HUNF 4361	Research in Nutrition	3
HUNF 4366	Medical Nutrition Therapy I	3
HUNF 4367	Medical Nutrition Therapy II	3
HUNF 4369	Community Nutrition and Health	3
Support Area Requirements		23
BIOL 1307	General Microbiology	
BIOL 2401	Anatomy and Physiology I ¹	
BIOL 2402	Anatomy and Physiology II	
CHEM 1304	General Inorganic Chemistry II	
CHEM 2303	General Organic Chemistry I	
COMM 1311	Introduction to Speech Communication	
MATH 1342	Elementary Statistics	

MGMT 1301	Introduction to Business	
Total Hours		120

¹ Three hours of BIOL 2401 Human Anatomy & Physiology I counts toward the core curriculum and one hour of BIOL 2401 Human Anatomy & Physiology I counts toward the support requirements

Bachelor of Science in Dietetics Human Nutrition and Food Degree Sequence

Core: <https://catalog.pvamu.edu/universitycorecurriculum/> (<https://catalog.pvamu.edu/universitycorecurriculum/>)

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Communication Core		3 Communication Core	3
ENGL 1301		ENGL 1302	
American History Core		3 American History Core	3
HIST 1301		HIST 1302	
HUNF 1322		3 Life and Physical Sciences Core	4
Life and Physical Sciences Core		3 BIOL 2401	
CHEM 1303		Mathematics Core	3
COMM 1311		3 MATH 1314	
		HUNF 1130	1
		MGMT 1301	3
Total		15 Total	17

Total Hours: 32

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Government/Political Science Core		3 BIOL 1307	3
POSC 2305		Government/Political Science Core	3
CHEM 1304	3	POSC 2306	
HUNF 2353		3 CHEM 2303	3
HUNF 2363		3 HUNF 2366	3
BIOL 2402		4 Social and Behavioral Sciences Core	3
		SOCG 1301 or PSYC 2301	
Total		16 Total	15

Total Hours: 31

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
HUNF 3361		3 Language, Philosophy, and Culture Core	3
HUNF 2365		3 Component Area Option Two Core	3
MATH 1342		3 COMP 1300	
ECON 1301		3 HUNF 3360	3
HUNF 3364		3 HUNF 3365	3
		HUNF 3367	3
Total		15 Total	15

Total Hours: 30

Senior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
HUNF 4330		3 HUNF 4367	3
HUNF 4360		3 HUNF 4361	3
HUNF 4366		3 HUNF 4369	3
Creative Arts Core		3 HUNF 4347	3

HUNF 3363	3	
Total	15 Total	12

Total Hours: 27

Total Semester Credit Hours 120

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

Degree Skills

1. Health and wellness
2. Food service
3. Health coaching
4. Nutrition care process
5. Nutrition counseling and education
6. Food and nutrition management

Concentration Skills

1. Critical thinking
2. Social and cultural competencies
3. Effective communication

Co-curricular and Extracurricular Skills

1. Teamwork
2. Problem solving
3. Leadership

Department of Agriculture, Nutrition, and Human Ecology, Graduate

Purpose and Goals

Graduate programs in the College of Agriculture, Food, and Natural Resources shall reinforce and strengthen the University's land grant mission by implementing nutrition, dietetics, and natural resource sciences programs. The programs highlight learning, discovery, and student engagement, focusing on sound public policy, the best available science, and efficient management.

Programs

Master of Science in Natural Resources and Environmental Sciences

Promote and protect our natural resources, advance your profession, and follow your passion. Prairie View A&M University's Master of Science program in Natural Resources and Environmental Sciences makes your career goals possible. The professional program provides a pathway for manifesting academic teaching and research careers or applied research and extension in educational and governmental institutions, international, national, and state technical assistance and policy agencies, agricultural and forestry industries, consulting firms, and private nonprofit and non-governmental organizations.

The curriculum provides a thorough background and research opportunities in:

- Climate Change and Climate Extremes (drought/flood)
- Water-energy-food Nexus
- Soil Health
- Watershed Management and Hydrology
- GIS and Remote Sensing
- Natural Resources, Economics and Environmental Planning, and
- Other natural resources-related fields

The 36 SCH program offers both thesis and non-thesis options in a face-to-face format on the PVAMU main campus. Students are given opportunities to work on projects related to the above topics and other issues on natural resources, environmental sustainability, and resiliency.

Master of Science in Nutrition

The Master of Science in Nutrition provides opportunities for students to study in a multidisciplinary program that prepares them to address global nutritional issues such as hunger and food insecurity and prevent diseases such as obesity, cardiovascular diseases, and cancer. The MS Nutrition is designed for Registered Dietitians/Registered Dietitian Nutritionists (RD/RDN), students from nutrition and dietetics, and students with non-nutrition and dietetics backgrounds who hold a BS degree desiring to advance their nutrition, health, wellness, and fitness knowledge. The program offers three tracks for completion: Dietetics, Thesis, and Non-thesis. The primary objectives of MS Nutrition are to:

- Prepare graduates to recognize the spectrum of global nutrition challenges affecting various population subgroups.
- Provide a graduate nutrition program of excellence focused on studying human nutritional issues, emphasizing the needs of disadvantaged and rural populations and ethnic minorities at the local, national, and global levels.
- Prepare competent graduates in human nutrition with the expertise and skills to improve nutrition, health, wellness, and the quality of life for individuals and families.
- Conduct intradisciplinary and interdisciplinary research to improve the nutrition, health, wellness, and quality of life of disadvantaged and rural populations, ethnic minorities, and various communities.

Instructional Organization

The College of Agriculture, Food, and Natural Resources offers the following graduate degree programs:

Program	Degree Offered
Natural Resources and Environmental Sciences	MS
Nutrition	MS

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 coursework application.

Admission Requirements

Students desiring to major in the graduate program in the College of Agriculture, Food, and Natural Resources must:

1. Present undergraduate subject matter credits consistent with or closely aligned with the academic specialties offered by an accredited college or University.
2. Meet all requirements as outlined by the Office of Graduate Studies (<https://catalog.pvamu.edu/admissionsinformationandrequirements/applytograduateschool/#text>).

Natural Resources and Environmental Sciences, MS

Master of Science in Natural Resources and Environmental Sciences Degree Program Requirements

The MS in Natural Resources and Environmental Sciences is comprised of 36 SCH with a thesis or non-thesis option.

Required Courses

NRES 5101	Seminar	1
NRES 5202	Advanced Research Methods in NRES	2
NRES 5303	Research Statistics in NRES	3
NRES 5312	Resources and Environmental Policy	3
NRES 5323	Hydrologic Processes in Soils	3
NRES 5324	Advanced Watershed Management	3
Option (Select one below)		21
Total Hours		36

Thesis Option

Thesis		6
NRES 6600	Thesis	
Prescribed Electives		15

Select five from below:	
AGEC 5321	Land Use and Resource Management
AGRO 5366	Principles of Environmental Science and Management
AGRO 5375	Soils, Ecology, and Land Uses
AGRO 5379	Problems and Issues in Environmental Science
NRES 5305	Advanced GIS and RS for Environmental Management
NRES 5310	Economic Analysis of Natural Resource Management
NRES 5311	Human Dimensions of Natural Resource Management
NRES 5322	Environmental Hydrology
NRES 5325	Advanced Groundwater Hydrology

Total Hours **21**

Non-Thesis Option

Prescribed Electives **21**

Select seven from below:	
AGEC 5321	Land Use and Resource Management
AGRO 5366	Principles of Environmental Science and Management
AGRO 5375	Soils, Ecology, and Land Uses
AGRO 5379	Problems and Issues in Environmental Science
NRES 5305	Advanced GIS and RS for Environmental Management
NRES 5310	Economic Analysis of Natural Resource Management
NRES 5311	Human Dimensions of Natural Resource Management
NRES 5322	Environmental Hydrology
NRES 5325	Advanced Groundwater Hydrology

Total Hours **21**

Master of Science in Natural Resources and Environmental Sciences Degree Sequence

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
NRES 5101		1 NRES 5324	3
NRES 5202		2 Thesis or Non-Thesis Option	3
NRES 5303		3 Thesis or Non-Thesis Option	3
NRES 5312		3	
Total		9 Total	9

Total Hours: 18

Second Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
NRES 5323		3 Thesis or Non-Thesis Option	3
Thesis or Non- Thesis Option		3 Thesis or Non-Thesis Option	3
Thesis or Non-Thesis Option		3 Thesis or Non-Thesis Option	3
Total		9 Total	9

Total Hours: 18

Name	Unit
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Total Semester Credit Hours: 36

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

Degree Skills

1. Efficient and sustainable use of natural resources and the environment
2. Develop and implement solutions for a changing climate
3. Support low carbon and climate-resilient solutions

Concentration Skills

1. Quantitative and qualitative skills in managing natural resources and the environment
2. Broad and comprehensive knowledge-base in natural resources and the environment
3. Ability to address the needs of greener living

Co-curricular and Extracurricular Skills

1. Hands-on experience in dealing with unprecedented challenges
2. Comprehensive understanding of multi-disciplinary challenges
3. Understanding of technical and socio-economic dimensions of natural resource and environmental issues

Nutrition, MS

Master of Science in Nutrition (Pending SACSCOC Approval)

Dietetics Track, Non-Thesis**Required Courses**

NUTR 5302	Nutrition Informatics	3
NUTR 5310	Nutrition Assessment	3
NUTR 5312	Social and Cultural Influences on Nutrition	3
NUTR 5313	Nutrition & Metabolism I	3
NUTR 5315	Global Nutrition	3
NUTR 5633	Advanced Practicum in Dietetics ¹	6
NUTR 5633	Advanced Practicum in Dietetics ¹	6

Prescribed Electives (Choose one from below)**3**

NUTR 5311	Nutrition and Public Health	
NUTR 5314	Nutritional Epidemiology	
NUTR 5301	Food and Nutrition Policy	
NUTR 5322	Nutrition Education & Counseling	
NUTR 5303	Biostatistics	
NUTR 5320	Food Nutrition & Communication	

Total Hours**30**

¹ Course repeated twice for a total of 12 SCH

Thesis Track**Required Courses**

NUTR 5300	Research Methods	3
NUTR 5302	Nutrition Informatics	3
NUTR 5303	Biostatistics	3
NUTR 5312	Social and Cultural Influences on Nutrition	3
NUTR 5313	Nutrition & Metabolism I	3
NUTR 5314	Nutritional Epidemiology	3
NUTR 5315	Global Nutrition	3
NUTR 6306	Thesis	3
NUTR 6306	Thesis	3

Prescribed Electives (Choose one from below)**3**

NUTR 5100	Seminar in Nutrition	
NUTR 5301	Food and Nutrition Policy	

NUTR 5311	Nutrition and Public Health	
NUTR 5320	Food Nutrition & Communication	
NUTR 5322	Nutrition Education & Counseling	
NUTR 5323	Nutrition & Metabolism II	

Total Hours **30**

Non-Thesis Track

Required Courses

NUTR 5302	Nutrition Informatics	3
NUTR 5303	Biostatistics	3
NUTR 5310	Nutrition Assessment	3
NUTR 5312	Social and Cultural Influences on Nutrition	3
NUTR 5313	Nutrition & Metabolism I	3
NUTR 5314	Nutritional Epidemiology	3
NUTR 5315	Global Nutrition	3
NUTR 5326	Capstone Project	3
NUTR 5326	Capstone Project	3

Prescribed Electives (Choose three from below) **9**

NUTR 5100	Seminar in Nutrition	
NUTR 5301	Food and Nutrition Policy	
NUTR 5311	Nutrition and Public Health	
NUTR 5320	Food Nutrition & Communication	
NUTR 5322	Nutrition Education & Counseling	
NUTR 5323	Nutrition & Metabolism II	

Total Hours **36**

Master of Science in Nutrition Degree Sequence - Dietetics, Non-Thesis Track

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
NUTR 5312		3 NUTR 5302		3 NUTR 5633	6
NUTR 5633		6 NUTR 5310		3	
NUTR 5313		3 Nutrition Elective 5000 Level		3	
		NUTR 5315		3	
Total		12 Total		12 Total	6

Total Hours: 30

Master of Science in Nutrition Degree Sequence - Thesis Track

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
NUTR 5312		3 NUTR 5302		3 NUTR 5300	3
NUTR 5303		3 NUTR 5315		3 Nutrition Elective 5000 Level	3
NUTR 5313		3 NUTR 6306		3 NUTR 6306	3
NUTR 5314		3			
Total		12 Total		9 Total	9

Total Hours: 30

Master of Science in Nutrition Degree Sequence - Non-Thesis Track

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
NUTR 5312		3 NUTR 5302		3 Nutrition Elective 5000 Level	3
NUTR 5303		3 NUTR 5315		3 Nutrition Elective 5000 Level	3
NUTR 5313		3 NUTR 5326		3 Nutrition Elective 5000 Level	3
NUTR 5314		3 NUTR 5310		3 NUTR 5326	3
Total		12 Total		12 Total	12

Total Hours: 36

College of Business

Background

The College of Business offers an undergraduate degree program in business administration – the bachelor of business administration; three graduate degree programs: Master of Science (MS) in Accounting, Master of Business Administration (MBA) including an executive program (EMBA), and a Doctor of Business Administration (DBA) offered as an executive option.

Vision Statement:

The Prairie View A&M University College of Business envisions becoming a nationally recognized business program known for its transformative impact on students through an education that empowers them to reach their full potential.

Mission Statement:

The Prairie View A&M University College of Business transforms students from diverse academic and socioeconomic backgrounds into ethical business professionals and leaders who are entrepreneurial, productive, and prepared to succeed in the global economy. We achieve this through our strong commitment to high-quality teaching, relevant and impactful research, and outreach to the community.

Instructional Organization

Program	Degree Offered
Accounting	BBA, MS
Business Administration for Executives	EMBA
Business Administration	DBA
Finance	BBA
General Business Administration	MBA
Management	BBA
Management Information Systems	BBA
Marketing	BBA

Accreditation

All baccalaureate and 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 of 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.

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 degree to a baccalaureate degree program. The College of Business will generally accept credit for 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.

Graduate Programs in Business

The College of Business offers graduate programs leading to a Master of Business Administration (MBA), a Master of Science in Accounting (MS), a Doctorate of Business Administration (DBA), and an Executive Master of Business Administration (EMBA) for working executives and professionals.

- The Master of Science in Accounting prepares students for careers in accounting; the MS in Accounting degree requires the successful completion of a minimum of 30 SCH.
- The Master of Business Administration (MBA) program is offered in Houston at the PVAMU Northwest Houston Center. MBA courses are also available online, allowing students the flexibility to manage their coursework while working. 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.
- An Executive MBA option is designed for experienced professionals and managers who will benefit from understanding the 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.
- The DBA program seeks to serve the educational and career development needs of executives and professionals. It differs from the traditional PhD program in a number of ways. Traditional PhD programs are designed to prepare students who want to become full-time professors, emphasizing developing new theories and conducting scholarly research. Unlike most traditional doctoral programs, the DBA is designed for working adults who cannot take time off from work and is not a fully residential program. The residential component is on weekends (Friday and Saturday) once a month. The rest of the learning takes place online.

Both the MBA and Executive MBA programs require the successful completion of a minimum of 36 semester credit hours (SCH). There is no thesis option required in the MS or the MBA programs.

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.

Honor Societies, Professional and Service Organizations

Business students are encouraged to participate in professional organizations and honor societies. These organizations allow students to develop professional skills, e.g., teamwork, planning, organizing, leadership, and communication. The following organizations are open to business majors.

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.

American Marketing Association (AMA), is an international society for marketing professionals, is one of the largest professional associations for marketers. Members participate in regional, national and local marketing activities.

Beta Alpha Psi is an honor organization for financial information students and professionals. All chapters of BAP are AACSB (<https://www.aacsb.edu/>) and/or EQUIS (<https://efmdglobal.org/accreditations/business-schools/equis/>) accredited. Membership is available to those who meet the eligibility criteria.

Beta Gamma Sigma is the honor society serving business programs accredited by AACSB International – The Association to Advance Collegiate Schools of Business. Membership in Beta Gamma Sigma is the highest recognition a business student anywhere in the world can receive in a business program accredited by AACSB International.

Dean's Student Advisory Council is composed of the student organization presidents, one elected representative from each of the College of Business clubs/organizations and the College of Business Senator(s). The Council serves as a liaison between the Dean of the College of Business and students.

Enactus 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.

The **Hispanic Business Student Association** is a group of individuals united with a similar academic and personal interest in business, with the desire to be united in a professional association to promote group identity, to develop professionally, to encourage students to self-improve, to foster moral and ethical standards, to recognize academic and professional achievement, to cultivate a sense of professional and civic responsibility and service to promote the study of accounting, finance, management and any business-related subject.

Association for Information Systems (AIS) is the premier global organization for information systems professionals. AIS student chapter is for students planning for careers in information systems (IS) or related fields. AIS PVAMU Student Chapter allows students to network with faculty advisors

and student chapters at other colleges and universities. The chapter also provides the students with opportunities to network with industry professionals and explore career opportunities in IS or related fields.

The **National Association of Black Accountants (NABA)** is 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 intend to enter the accounting profession.

PV Finance Association/Scholars of Finance promotes the stimulation of the students' interest in finance, the achievement of excellence among students in the field of study in the department, applying academic knowledge to practical situations, and the promotion of ethical principles.

Voices of Distinction offers students an opportunity to improve their public speaking, business communication and presentation skills.

Special Programs

Double Majors

Students enrolled in baccalaureate degree programs in the College of Business who elect to complete the requirements of two majors will be awarded the BBA degree with a double major. (See requirements for a second baccalaureate degree under the General Academic Information Graduation (<https://catalog.pvamu.edu/generalacademicinformation/undergraduate/#applicationforgraduationtext>) section of the Academic Catalog.)

Certificates

Students must consult with their academic advisor to ensure the courses for the certificate meet the requirements of the declared degree program. If the courses do not apply to the declared degree plan, the courses for the certificate will not qualify for federal aid under Course Program of Study (CPoS) requirements.

Certificate in Innovation and Entrepreneurship

This is a special program designed to enable non-business and business majors to gain functional knowledge and skills in business to become successful entrepreneurs. Requirements for the Certificate in Innovation and Entrepreneurship are listed 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 includes, but is not limited to, sophomore or higher standing with a minimum grade point average of 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.

College of Business, Graduate Programs

Graduate Programs in Business

The College of Business offers graduate programs leading to a Master of Business Administration (MBA), a Master of Science in Accounting (MS), a Doctorate of Business Administration (DBA), and an Executive Master of Business Administration (EMBA) for working executives and professionals.

- The Master of Science in Accounting prepares students for careers in accounting; the MS in Accounting degree requires the successful completion of a minimum of 30 SCH. For more information on the Master of Science in Accounting degree program, visit the Department of Accounting, Finance, and Management Information Systems Graduate section (p. 111).
- The Master of Business Administration (MBA) program is offered in Houston at the PVAMU Northwest Houston Center. MBA courses are also available online, allowing students the flexibility to manage their coursework while working. 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.
- An Executive MBA option is designed for experienced professionals and managers who will benefit from understanding the 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.
- The DBA program seeks to serve the educational and career development needs of executives and professionals. It differs from the traditional PhD program in a number of ways. Traditional PhD programs are designed to prepare students who want to become full-time professors, emphasizing developing new theories and conducting scholarly research. Unlike most traditional doctoral programs, the DBA is designed for working adults

who cannot take time off from work and is not a fully residential program. The residential component is on weekends (Friday and Saturday) once a month. The rest of the learning takes place online.

Both the MBA and Executive MBA programs require the successful completion of a minimum of 36 semester credit hours (SCH). There is no thesis option required in the MS or the MBA programs.

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, Executive MBA, DBA, or MS programs must meet the general admission requirements outlined in the Graduate (<https://catalog.pvamu.edu/generalacademicinformation/graduate/>) section of this catalog as well as meet College of Business requirements. The admission decision is based on a combination of factors including, undergraduate cumulative GPA, an essay, an interview and professional work experience.

Regular (Degree-Status) Admission for the Master of Business Administration and Master of Science in Accounting Programs

Applicants must be admitted by the Office of Graduate Studies and the College of Business. Admission to the MBA or MS degree program requires the following:

1. 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. Cumulative undergraduate grade point average (GPA) of 2.75 or better on a 4.0 scale or has a GPA of 3.0 or better for the last 60 earned hours of undergraduate credit. The admissions process takes a holistic approach to review applications. Therefore, individuals with a GPA between 2.50 and 2.74 should contact the director for individual review.
3. Essay describing answering the prompt: "Please share your short-term and long-term career goals. Explain how the graduate business degree contributes to accomplishing these goals." The essay should not exceed 500 words.

Executive MBA Admission Requirements

A student interested in the Executive MBA program must meet the general admission requirements outlined in the Graduate (<https://catalog.pvamu.edu/generalacademicinformation/graduate/>) section of this catalog as well as meet College of Business requirements. In addition to meeting the minimum requirements outlined to be admitted to the Office of Graduate Studies, applicants to the Executive MBA program will need to have earned a bachelor's degree. In addition, 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 Executive MBA admissions committee. Given the professional work experience requirement, there is no GMAT or GRE requirement for admission to this program.

Doctor of Business Administration Admission Requirements

1. A Master's degree from an accredited college or university with a minimum 3.0-grade point average (GPA) on a 4.0 grading scale.
2. Official transcript(s) for all college work (undergraduate and graduate from each institution previously attended) are required for admission.
3. Seven or more years of professional or managerial experience that requires high levels of responsibility
4. Interview with the DBA Admission Committee
5. Two essays: Statement of Purpose essay (maximum two pages) and the Proposal of Research Interest essay (maximum five pages). The Statement of Purpose essay should describe the applicant's motivations for pursuing the DBA program and the goals the applicant would like to accomplish. The Proposal of Research Interest essay should outline planned research objectives or practical problems of interest, how they are relevant to academic literature and real-world business practices, what research methodologies are employed, how data are collected, how research outcomes can contribute to academic literature and solve real-world business problems, etc.
6. Three letters of recommendation from supervisors and/or colleagues who can attest to your professional and managerial experience by describing your job responsibilities and accomplishments in detail.
7. A non-refundable fee

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 Admission Information and Requirements (<https://catalog.pvamu.edu/admissionsinformationandrequirements/applytograduateschool/>) section of the Academic 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 applied 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 a "B" or better in the course.
5. Requesting that the university where the student took the course send an official transcript (showing the final grade) to the Director.
6. Adhering to 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 Director and the Dean must approve the Application for Admission to Candidacy. The approval of the *Application for Admission to Candidacy* is granted by the Dean upon approval from the Office of Graduate Studies. Failure to fulfill this requirement may prevent the student from enrolling in the next semester

Accounting for Executives Courses

EACC 5321 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.

Doctorate of Business Administration Courses

EDBA 7311 Research and Academic Writing: 3 semester hours.

This course is designed to assess various research methodologies commonly adopted by social researchers in conducting business research from the perspective of their research problems, strategies, domains, and technologies. In addition, students learn about the effective dissemination of their research findings in a written paper and presentation.

EDBA 7312 Applied Statistical Analysis I: 3 semester hours.

This course focuses on enabling students to choose relevant statistical methods and implement them correctly in the course of collecting data and generating statistical inference. Topics include sampling, estimation, hypothesis testing, simple and multiple regression models, residual analysis, and others. Students gain proficiency in using statistics software, such as SPSS, SAS and others.

EDBA 7313 Qualitative Research Methods: 3 semester hours.

This course is designed to help students develop an understanding of qualitative research methods and designs. Through presentation of scholarly readings and research projects, the course explores a variety of qualitative research approaches, taking into account issues of epistemology (ways of knowing), methodology (ways of examining), and representation (ways of writing and reporting). In addition, the course provides a survey of the methodological literature on qualitative research methods paired with appropriate article exemplars. The course also covers a variety of different research strategies including case study, qualitative data collection and analysis techniques ethnography. In a nutshell, the course develops skills in designing, evaluating, and understanding qualitative research methods.

EDBA 7314 Applied Statistical Analysis II: 3 semester hours.

This course explores advanced analytical techniques for data mining, analysis, and inference, focusing on multivariate statistical analysis. It covers various topics, including multivariate data exploration, multiple regression analysis, principal component analysis (PCA), cluster analysis, data classification, and structural equation modeling (SEM). Students work with data analytics software, such as SAS, R, and KNIME, and advance their understanding of analytical methods for dissertation research.

EDBA 7317 Dissertation Mini-Proposal I: 3 semester hours.

This course introduces theories and research methods in business to assist students in generating several research issues they have encountered in business practice. Feasibility of these issues is evaluated from the perspective of relevant theories and research methods.

EDBA 7318 Dissertation Mini-Proposal II: 3 semester hours.

This course requires students to develop an applied research proposal by expanding their research prospectus in the prerequisite course, Foundations of Applied Research Prospectus. A student chooses his/her primary advisor. The proposal includes several necessary components, which will be part of a future dissertation, such as the identification of the research issue, expanded literature review, hypothesis development, and appropriate research methodology in consultation with the primary advisor. The research proposal will be presented before the course instructor, the primary advisor and colleagues.

EDBA 7321 Applied Research in Accounting: 3 semester hours.

This course discusses selected major topics in accounting, such as the role of accounting rules in capital markets, firm valuation, agency theory, behavior research in management accounting, and others.

EDBA 7322 Finance Theory and Applications: 3 semester hours.

This course provides theoretical and empirical foundation in finance, with a special emphasis on corporate finance. Topics include empirical research methods in finance, capital structure, payout policy, internal capital markets, financial risk management, financial distress and bankruptcy, and others.

EDBA 7323 Information Systems Research: 3 semester hours.

This doctoral seminar is designed to provide students with a broad introduction to key management, organizational, and behavioral research issues, theoretical perspectives, and challenges in contemporary topics of virtual environments, digitization, digital systems, and information technology.

EDBA 7324 Organizational Leadership Theory and Applications: 3 semester hours.

The course will present a comprehensive overview of leadership and management theories that have emerged over the years by enabling students to analyze major theories and models of leadership. Leadership would be discussed at individual, team, and organizational levels.

EDBA 7325 Strategic Business Analysis: 3 semester hours.

This course adopts an integrated approach to understand complex management strategies, which determine future organizational success. Students in the course are exposed to the broad range of academic and professional articles from the theoretical to the empirical and from the classic to the current.

EDBA 7326 Business Analytics and Supply Chain: 3 semester hours.

This course is designed to provide in-depth knowledge in data analytics, decision making process models for effective supply chain management. Topics include probability and statistics, data visualization, regression, data mining, optimization models, Monte Carlo simulation, and decision analysis. Considering the complexity of supply chain problems, a generalized research framework, case analysis – problem description – quantitative modeling – computational analysis – client presentation, will be used for business case studies. The knowledge learned in this class should help you identify opportunities in which business analytics can be used to improve supply chain performance.

EDBA 7327 Marketing Theory and Applications: 3 semester hours.

The course will go over topics related to marketing's role within firms, customer relationship management, marketing strategies, and impact of globalization and new media. Also, the course synthesizes extant academic findings with better marketing management practices.

EDBA 7328 Global Economic Systems and Issues: 3 semester hours.

This course will explore various global economic issues and their potential to affect management decision making. The course materials will focus on development and growth, international trade and finance, and micro and macro perspectives of the firm relating to the global economy.

EDBA 8691 Dissertation I: 6 semester hours.

The dissertation phase of the DBA program takes place in three successive semesters for doctoral students to expand and execute a research proposal that was developed in Design of Applied Research Proposal. In Dissertation I, students make necessary changes to the research proposal based on the feedback from the dissertation committee (a primary and two secondary advisors) with respect to the significance of a problem to the business practice and knowledge advancement, supporting theories and concepts, the relevancy of methodology, the availability of data, and appropriate analytical skills to proceed with research topics. Students should develop viable research hypotheses or questions.

EDBA 8692 Dissertation II: 6 semester hours.

Students conduct empirical investigations with respect to the research hypotheses or questions proposed with assistance from dissertation committee members regarding the sampling and data collection procedures, analyses of data, statistical inferences, and others.

Prerequisites: EDBA 8691.

EDBA 8693 Dissertation III: 6 semester hours.

Students produce preliminary drafts of their dissertations and receive feedback from their committee members and make a formal presentation of their dissertation in front of their committee members, faculty and students. If a student is not able to complete and defend his/her dissertation by the end of Dissertation III, he/she will continue to enroll in this course every regular semester. Prerequisite: EDBA 8692

Prerequisites: EDBA 8692.

Economics for Executives Courses***EECO 5310 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 micro and macro 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.

Finance for Executives Courses***EFIN 5310 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.

Managerial Comm for Executives Courses***EMCO 5302 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.

EMCO 5320 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.

Management for Executives Courses***EMGM 5310 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 5311 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 5330 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 5340 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 5350 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 5390 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.

Mngmnt Info Sys for Executives Courses**EMIS 5351 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.

Marketing for Executives Courses**EMRK 5343 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.

Master of Business Administration, MBA**Master of Business Administration Degree 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.

Students enrolled in the MBA program may select one concentration among those listed below or select a combination of three (3) elective courses for a general MBA degree.

Prerequisite Courses

ACCT 5300	Concepts of Accounting	3
BCOM 5320	Managerial Communication	3
ECON 5300	Concepts of Economic Analysis	3
FINA 5300	Concepts of Finance	3
MGMT 5311	Business Statistics	3
MRKT 5300	Concepts of Marketing	3

Total Hours		18
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Core Courses

ACCT 5310	Managerial Accounting & Control	3
MISY 5310	Management Information Systems	3
ECON 5310	Managerial Economics	3
FINA 5310	Theory of Financial Management	3
MGMT 5310	Organizational Behavior	3
MGMT 5312	Business Analytics and Modeling	3
MGMT 5332	Strategy and Policy	3
MGMT 5344	Operations Management	3
MRKT 5330	Marketing Management	3

Elective Courses		9
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Select three of the following or one of the concentrations below:

ECON 5331	International Trade and Business
FINA 5333	International Finance
MGMT 5334	Human Resource Management
MGMT 5335	Entrepreneurship and Innovation
MGMT 5361	Special Topics

MISY 5332	Data Com and Network
MISY 5353	Special Topics in MISY
MRKT 5331	International Marketing
Concentration in Accounting	
ACCT 5311	Advanced Auditing
ACCT 5315	Seminar on Tax Consulting, Planning and Research
ACCT Elective	
Concentration in Finance	
FINA 5331	Investment Analysis and Management
FINA 5338	Fin Mrkt and Inst
FINA Elective	
Concentration in Management Information Systems	
MISY 5341	App Database Management
MISY 5342	Info Syst Analysis
MISY Elective	
Concentration in Entrepreneurship	
ENTR 5336	Managing Innovation
ENTR 5337	Leading Innovation
ENTR 5338	Funding New Ideas
Total Hours	36

Master of Business Administration Degree Sequence

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
ACCT 5310		3 FINA 5310	3
ECON 5310		3 MRKT 5330	3
MISY 5310		3 Elective	3
Total		9 Total	9

Total Hours: 18

Second Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
MGMT 5310		3 MGMT 5332	3
MGMT 5312		3 MGMT 5344	3
Elective		3 Elective	3
Total		9 Total	9

Total Hours: 18

Name	Unit
Total Semester Credit Hours: 36	

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

Master of Business Administration

Degree Skills

1. Ability to think critically in identifying opportunities and solutions contributing to the growth and development of an organization
2. Ability to analyze information as part of the problem-solving and decision-making process
3. Ability to recognize how potential outcomes of the decision-making process impact the broader organization
4. Ability to collaborate on projects within varied group dynamics

Executive Master of Business Administration, EMBA

Executive Master of Business Administration Degree Program Requirements

EACC 5321	Accounting for Executives	3
EECO 5310	Economics in the Global Environment	3
EFIN 5310	Topics in Corporate Finance	3
EMCO 5320	Executive Managerial Communication	3
EMGM 5310	Data Analysis for Managerial Decision Making	3
EMGM 5311	Executive Leadership	3
EMGM 5330	Executive Topics in Strategy and Policy	3
EMGM 5340	Operations and Supply Chain Management	3
EMGM 5350	Business Ethics and Law	3
EMGM 5390	Capstone Project	3
EMIS 5351	Information Technology and Organizational Value Creation	3
EMRK 5343	Marketing in a Global Environment	3
Total Hours		36

Executive Master of Business Administration Degree Sequence

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
EMGM 5310		3 EMGM 5340		3 EACC 5321	3
EMCO 5320		3 EECO 5310		3 EMRK 5343	3
Total		6 Total		6 Total	6

Total Hours: 18

Second Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
EFIN 5310		3 EMIS 5351		3 EMGM 5311	3
EMGM 5350		3 EMGM 5330		3 EMGM 5390	3
Total		6 Total		6 Total	6

Total Hours: 18

Name	Unit
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Total Semester Credit Hours: 36

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

Executive MBA

Degree Skills

1. Ability to apply business concepts in the real world situations through case analysis, capstone projects, and business field experiences
2. Ability to think critically in identifying opportunities and solutions contributing to the growth and development of an organization
3. Ability to analyze information as part of the problem-solving and decision-making process
4. Ability to recognize how potential outcomes of the decision-making process impact the organization and stakeholders

Co-curricular and Extracurricular Skills

1. Communication
2. Teamwork
3. Time management

Doctor of Business Administration, DBA

Doctor of Business Administration Degree Program Requirements

EDBA 7311	Research and Academic Writing	3
EDBA 7312	Applied Statistical Analysis I	3
EDBA 7313	Qualitative Research Methods	3
EDBA 7314	Applied Statistical Analysis II	3
EDBA 7317	Dissertation Mini-Proposal I	3
EDBA 7318	Dissertation Mini-Proposal II	3
EDBA 7321	Applied Research in Accounting	3
EDBA 7322	Finance Theory and Applications	3
EDBA 7323	Information Systems Research	3
EDBA 7324	Organizational Leadership Theory and Applications	3
EDBA 7325	Strategic Business Analysis	3
EDBA 7326	Business Analytics and Supply Chain	3
EDBA 7327	Marketing Theory and Applications	3
EDBA 7328	Global Economic Systems and Issues	3
EDBA 8691	Dissertation I	6
EDBA 8692	Dissertation II	6
EDBA 8693	Dissertation III	6
Total Hours		60

Doctor of Business Administration Degree Sequence

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
EDBA 7311		3 EDBA 7312		3 EDBA 7313	3
EDBA 7327		3 EDBA 7321		3	
EDBA 7328		3 EDBA 7323		3	
Total		9 Total		9 Total	3

Total Hours: 21

Second Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
EDBA 7322		3 EDBA 7325		3 EDBA 7318	3
EDBA 7324		3 EDBA 7326		3	
EDBA 7314		3 EDBA 7317		3	
Total		9 Total		9 Total	3

Total Hours: 21

Third Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
EDBA 8691		6 EDBA 8692		6 EDBA 8693	6
Total		6 Total		6 Total	6

Total Hours: 18

Name	Unit
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Total Semester Credit Hours: 60

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

Doctor of Business Administration

Degree Skills

1. Enhanced skills in analytical and statistical competencies to advance to the C-suite as executive scholars
2. Enhanced knowledge in dealing with complicated business problems resulting from advanced technologies to work as management consultants or entrepreneurs
3. Academic research skills coupled with real-world experience to teach and continue research at a community college or university

Department of Accounting, Finance and Management Information Systems

Purpose and Goals

The Department of Accounting, Finance, & MIS offers the Bachelor of Business Administration (BBA) in the following major areas of study: Accounting, Finance and Management Information System (MIS).

The BBA in 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 and professional education (CPA). Students are provided an accounting curriculum built upon a general business education in a liberal arts setting which encourages analytical and creative strategic thinking, as well as ethical conduct that fosters positive competition to develop confident, global-minded professionals with knowledge and skills to become leaders in their organizations. The program learning environment is based on open communication and interaction among faculty, students and potential employers. It provides a structured practical experience through student internship opportunities.

The BBA in 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 and a professional career. It seeks to provide students with a comprehensive and contemporary education in financial concepts and practices which prepares the graduates to respond to a dynamic national and global environment in the workplace. 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 BBA in 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 possess knowledge 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 professionals, the program provides an intense learning environment built on student, faculty, and corporate interaction.

Special Emphasis Options

4+1 Program in Accounting

The 4+1 program in accounting is designed to help accounting students move seamlessly into the Masters of Science in Accounting program upon completion of the Bachelor of Business Administration (BBA) program in accounting. Eligible students are allowed to earn **dual credit** (i.e., double-count) in two graduate courses (6 SCH) in the senior year toward meeting the degree requirements of both BBA and MS programs.

In addition to the enhancement of knowledge in the accounting discipline, the 4+1 program helps students academically prepare for the rigorous CPA exam. Students enrolled in the program become 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 MS in Accounting and MBA programs, see the Graduate Programs in the Business section of the Academic Catalog.

Master of Science in Accounting (MS)

Degree Program

The Master of Science (MS) in Accounting degree is designed to provide advanced accounting preparation for public, private, and governmental accounting careers. The program will also help prepare as well as qualify students to sit for the Uniform CPA Examination administered by Texas State Board of Public Accountancy.

Program Learning Goals

- **Program Goal 1: Mastery of Content:** Graduates will demonstrate an ability to think critically and 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.

Certified Public Accountant (CPA) Exam

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 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 MS Accounting program to become eligible for the CPA examination (150 hours). Joining the 4+1 program provides smooth transition into the MS program. For additional information on the MS in Accounting program, consult the Academic Catalog under the Department of Accounting, Finance, & MIS Graduate Program.

The Department of Accounting, Finance, and Management Information Systems offers degrees in the following programs:

Program	Degree Offered
Accounting	BBA, MS
Finance	BBA
Management Information Systems	BBA

Minor Areas of Study Offered by the Department

The Department of Accounting, Finance, & MIS offers minor programs of study in the following areas: Accounting, Finance, MIS, Personal Financial Planning, and Real Estate. Requirements for each minor area are listed below.

Students majoring in a business discipline will be allowed to count a maximum of 6 SCH (two courses) from the major area towards the minor requirements. Any additional courses which are common between the major area of study and the minor area must be made up by completing additional courses in the minor area. Consult department head for details. Business students must earn a grade of "C" or better in all minor area courses.

Non-Business students who have a minor in a business area are allowed to have one "D" grade in the minor area courses; however, they must have a cumulative GPA of 2.0 or higher for graduation with a business minor.

Requirements for a Minor in Accounting

ACCT 2301	Principles of Accounting	3
ACCT 2302	Principles of Managerial Accounting	3
ACCT 3321	Intermediate Accounting I	3
ACCT 3331	Cost Accounting	3
ACCT 4331	Accounting Information Systems	3
ACCT Elective (3000 or 4000 level) ¹		3
Total Hours		18

¹ Internship/Co-op cannot be used to meet this requirement. Prerequisites ACCT 2302 and junior/senior classification.

Requirements for a Minor in Finance

ACCT 2301	Principles of Accounting	3
ACCT 2302	Principles of Managerial Accounting	3
FINA 3310	Principles of Finance	3
FINA 3333	Investment Analysis	3
FINA 3338	Financial Markets and Institutions	3
FINA 4321	Managerial Finance	3
Total Hours		18

Requirements for a Minor in Personal Financial Planning

ACCT 3333	Federal Income Tax I	3
PFIN 3312	Financial Planning and Insurance	3
FINA 3333	Investment Analysis	3

PFIN 4311	Retirement Planning and Employee Benefits	3
PFIN 4312	Estate Planning	3
PFIN 4343	Financial Planning Capstone	3
Total Hours		18

Requirements for a Minor in Management Information Systems

MISY 2301	Fundamentals of MIS with ERP	3
MISY 2315	Object-Oriented Programming Applications in Business	3
MISY 3332	Networking	3
MISY 3341	Business Database Applications	3
MISY 3342	System Analysis & Design	3
MIS Elective (3000 or 4000 level)		3
Total Hours		18

Requirements for a Minor in Real Estate

REST 3311	Real Estate Principles	3
REST 3322	Real Estate Finance	3
REST 3325	Real Estate Investment	3
BLAW 2301	Legal Environment of Business	3
BLAW 2324	Law of Agency	3
BLAW 2334	Law of Contracts	3
Total Hours		18

SAP Student Recognition Award

Through coursework and scenarios, students learn enterprise resource planning (ERP) to integrate cross-functional business processes, SAP skills and foundation of Information Systems concepts to address managerial issues.

Students must consult with their academic advisor to ensure the courses for the Recognition Award meet the requirements of the declared degree program. If the courses required for the award do not apply to the requirements of student's declared major and/or minor, either as required or elective, these will not qualify for federal aid under the Course Program of Study (CPOS) requirements.

Requirements for Student Recognition Award

MISY 2301	Fundamentals of MIS with ERP	3
MISY 4354	Predictive Analytics	3
MGMT 4354	ERP Apps in Supply Chain	3
Total Hours		9

4+1 Program in Accounting

The 4+1 program in Accounting is an accelerated program designed to help Accounting majors to be admitted and complete the Master of Science in Accounting program upon completion of the Bachelor of Business Administration (BBA) program in accounting, in five years. *Students will be allowed to double count two courses (6 SCH) toward the degree requirements of both the BBA and MS Accounting programs.* In addition to 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 Graduate Studies 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 Coordinator of the 4+1 program regarding their 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 are the same as those of the two separate programs together. The requirements are stated below.

BBA in Accounting Degree Requirements:

University Core Curriculum	42
General Education Supplement for Accounting Majors	21
College of Business Requirements	33
Major Area Requirements	30
Total Hours	126

MS in Accounting Degree Requirements are:

Required Courses	21
Elective Courses	9
Total Hours	30

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

ACCT 3321	Intermediate Accounting I	3
ACCT 3331	Cost Accounting	3
ACCT 3333	Federal Income Tax I	3
MGMT 3301	Business Statistics	3
MGMT 3310	Principles of Management	3

Junior Year - Second Semester

ACCT 3322	Intermediate Accounting II	3
ACCT 3324	Ethics for Accountants	3
BLAW 2321	Business Law	3
FINA 3310	Principles of Finance	3
MRKT 3310	Principles of Marketing	3

Senior Year - First Semester

ACCT 4321	Advanced Accounting	3
ACCT 4322	Auditing	3
ACCT 4331	Accounting Information Systems	3
MGMT 4333	Production and Operations Management	3
MS Accounting Course ¹		3
Language, Philosophy and Culture		3

Senior Year - Second Semester

BCOM 3330	Business Communication	3
MGMT 4330	Strategic Management and Business Policy	3
Economics Elective (or a grad course in economics) ¹		3
MS Accounting Course ¹		3

Graduate - Summer

ACCT 5314	Accounting Theory	3
ACCT 5312	Accounting Information Systems & Controls	3
MS Accounting Elective		3

Graduate - First Semester

ACCT 5317	Accounting for Managerial Decision Making	3
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ACCT 5311	Advanced Auditing	3
FINA 5310	Theory of Financial Management	3
Graduate - Second Semester		
ACCT 5315	Seminar on Tax Consulting, Planning and Research	3
ACCT 5332	Data Analytics in Accounting	3
MS Accounting Elective		3
Total Hours		87

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

Accounting Courses

ACCT 2301 Principles of 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 2302 Principles of 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 2301 or ACCT 2113.

ACCT 3321 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 2302 or ACCT 2123.

ACCT 3322 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 3321 or ACCT 3213.

ACCT 3324 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 2302 or ACCT 2123.

ACCT 3331 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 2302 or 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 or ACCT 2302.

ACCT 3334 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 3339 Accounting 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: ACCT 3322 or ACCT 3223.

ACCT 3399 Independent Study in Accounting: 3 semester hours.

Supervised reading, research, and/or field work on selected topics in accounting.

Prerequisites: ACCT 2302 or ACCT 2123.

ACCT 4321 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 3322 or ACCT 3223.

ACCT 4322 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 3322 or ACCT 3223.

ACCT 4325 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 3321 or ACCT 3213.

ACCT 4331 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 2302 or ACCT 2123) and (MISY 2301 or MISY 2013).

ACCT 4332 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 3322 or ACCT 3223.

ACCT 4333 Accounting Data Analytics: 3 semester hours.

The study of data analytics and its applications in accounting contexts, with an emphasis on data preparation, modeling, analysis and interpretation, and visualization.

Prerequisites: (ACCT 2123 or ACCT 2302) and (MGMT 3013 or MGMT 3301).

ACCT 4334 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 3321 or ACCT 3213) and (FINA 3310 or FINA 3103).

ACCT 4399 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 5300 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 5310 Managerial Accounting & Control: 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.

Prerequisites: ACCT 5300 or ACCT 5003.

ACCT 5311 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 4322 or ACCT 4223.

ACCT 5312 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 5300 or ACCT 5003.

ACCT 5314 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 3321 or ACCT 3213.

ACCT 5315 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 5317 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 5300 or ACCT 5003.

ACCT 5332 Data Analytics in Accounting: 3 semester hours.

The study of data analytics and its applications in accounting contexts, with an emphasis on data preparation, modeling, analysis and interpretation, and visualization.

Prerequisites: ACCT 5300 or ACCT 5003.

ACCT 5399 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.

Business Communication Courses

BCOM 3330 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 1302 or ENGL 1133) and (MISY 1305 or MISY 1013).

BCOM 5320 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 Courses

BLAW 2301 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 2321 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 2301 or BLAW 2203.

BLAW 2324 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 2302 or BLAW 2203.

BLAW 2334 Law of Contracts: 3 semester hours.

The course covers the basics of both real estate law and contract law with practical instructions on Texas real estate employment, sales, and lease contracts as well as laws and processes involved in financing, property ownership and conveyance. It is combined with promulgated contract forms to enable students opportunity to learn and understand the forms and addenda put forth by the Texas Real Estate Commission (TREC).

Prerequisites: BLAW 2324.

BLAW 2399 Independent Study in Business Law: 3 semester hours.

Supervised reading, research, and/or field work on selected topics in business law.

Prerequisites: BLAW 2301 or BLAW 2203.

Economics Courses

ECON 1301 Fundamentals of Economics in a Global Society: 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 a basic understanding of key global economic issues.

ECON 2301 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 2302 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 3309 Seminar in Banking: 3 semester hours.

This course will expose students to key concepts related to banking products (e.g. commercial lending). The course focuses on demanders (customers) and suppliers (banks), the process through which the suppliers identify appropriate demanders while accounting for systematic (economic business cycle) and idiosyncratic risks (customer-specific or supplier-specific).

Prerequisites: ACCT 2302 or ACCT 2123 or ECON 2302 or ECON 2113 or ECON 2301 or ECON 2123.

ECON 3331 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 2302 or ECON 2113 and (ECON 2301 or ECON 2123).

ECON 3332 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 2302 or ECON 2113) and (ECON 2301 or ECON 2123).

ECON 3334 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 2302 or ECON 2113 and (ECON 2301 or ECON 2123).

ECON 4321 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 2302 or ECON 2113.

ECON 4322 Intermediate Macroeconomic Analysis: 3 semester hours.

Analysis of determinants of the aggregate level of employment, output and income of an economy.

Prerequisites: ECON 2301 or ECON 2123 and (ECON 2302 or ECON 2113).

ECON 4334 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 2302 or ECON 2113) and (ECON 2301 or ECON 2123).

ECON 4335 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 2301 or ECON 2113 and ECON 2302 or ECON 2123.

ECON 4399 Independent Study: 1-3 semester hour.

Reading, research, and/or field work on selected topics.

ECON 5300 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 5310 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.

Prerequisites: (ECON 5300 or ECON 5003) or ((ECON 2311 or ECON 2113) and (ECON 2312 or ECON 2123)).

ECON 5331 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 5300 or ECON 5003.

Finance Courses

FINA 2300 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 2313 Financial Planning from a Global Perspective: 3 semester hours.

Designed to improve students' understanding of financial services industry and how it helps create wealth for individuals and the role of financial markets and institutions, domestic and global. Among the topics covered include economic and financial theories pertaining to the market system and their applications; computation of time value of money; analysis and evaluation of investment instruments including domestic and foreign stocks and bonds, mutual funds; foreign exchange rates and risk in foreign investment; financial planning to meet future financial need; cash and credit management; tax analysis and risk management.

FINA 3310 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 2302 or ACCT 2123.

FINA 3323 Trade Floor Dynamics: 3 semester hours.

The course introduces fundamental knowledge of commodities markets trading emphasizing energy sector with hands-on learning and trading experiences using virtual trading floor. Topics covered include physical versus financial assets trading, commodities and equity trading, trading risk, hedging versus speculation using derivatives; trading activities and behavior specific to energy sector assets.

Prerequisites: FINA 3310 or FINA 3103.

FINA 3333 Investment Analysis: 3 semester hours.

Study of the fundamental concepts, tools, techniques, assets, and strategies involved in investment decisions. Topics include valuation of investment alternatives and their risk-return characteristics, and analytical techniques.

Prerequisites: FINA 3103 or FINA 3310.

FINA 3338 Financial Markets and Institutions: 3 semester hours.

Major domestic financial institutions and markets as well as the U.S. central bank and other regulatory agencies will be analyzed with an extension to international markets; topics include determination of interest rates, security valuation, mortgage markets, commercial banks and other financial institutions and their risk management activities.

Prerequisites: FINA 3310 or FINA 3103 and (ECON 2301 or ECON 2123).

FINA 3339 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 3338 or FINA 3383.

FINA 3399 Independent Study in Finance: 3 semester hours.

Supervised reading, research, and/or field work on selected topics in finance.

Prerequisites: FINA 3310 or FINA 3103.

FINA 4321 Managerial Finance: 3 semester hours.

Introduces the concepts and analytical tools required to make value-creating financial decisions; provides students with theoretical foundations and practical applications of financial decision-making for business; covers a variety of topics, including financial statements, ratio analysis, risk-return analysis, bonds and stocks valuation, the cost of capital, capital structure, dividend policy, capital budgeting, and multinational financial management.

Prerequisites: FINA 3310 or FINA 3103.

FINA 4322 Commercial Lending: 3 semester hours.

Covers and qualitative analysis and assessment of industry risk, market risk and management risk; also provides an understanding of the role of loan policy and the need to summarize the borrower's various risks into an appropriate credit risk rating; in addition, it provides guidance on loan structuring and documentation issues in response to the analysis of quantitative and qualitative risks.

Prerequisites: ECON 2113 or ECON 2302 and (ECON 2123 or ECON 2301) and (FINA 3103 or FINA 3310).

FINA 4323 Bank Management: 3 semester hours.

Covers fundamental concepts and principles in commercial bank operations and management; analysis of bank assets and liabilities, assessment of various types of risk including operating, industry and market risks and management of risk exposure. Special emphasis on loans, the most important bank asset, particularly, commercial lending.

Prerequisites: ECON 2123 or ECON 2301 and (FINA 3103 or FINA 3310).

FINA 4330 Money and Banking: 3 semester hours.

Covers key topics in the theory and practice of financial markets, and banking; focuses on interest rates and money supply; the Federal Reserve System and monetary policy, regulation of financial markets and institutions; international financial system.

Prerequisites: ECON 2301 or ECON 2123.

FINA 4331 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 4335 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 3310 or FINA 3103 and ECON 2301 or ECON 2123.

FINA 4338 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 3310 or FINA 3103.

FINA 4345 Special Topics in Finance: 3 semester hours.

Supervised fulltime training in industry, government, or other agencies for senior-level. The course would provide a forum 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 2302 or ECON 2113 and (ECON 2301 or ECON 2123) and (FINA 3310 or FINA 3103).

FINA 4346 Student Managed Fund: 3 semester hours.

Focuses on security analysis and portfolio management; mixture of lectures, projects and presentations. Offers students a unique opportunity to manage portfolio in real-world setting, using Bloomberg Professional Services platform.

Prerequisites: ECON 2301 or ECON 2123 and (FINA 3310 or FINA 3103).

FINA 4350 Trading Risk Management: 3 semester hours.

Risks related to energy trading will be explored including market risk, credit risk, operational risk, exchange rate risk and portfolio risk; risk management factors, measures and techniques including value at risk (VAR), financial derivatives as hedging tools, statistical methods and hazard model will be utilized.

Prerequisites: FINA 3310 or FINA 3103.

FINA 4399 Independent Study in Finance: 1-3 semester hour.

Supervised reading, research, and/or field work on selected topics.

FINA 5300 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 5310 Theory of Financial Management: 3 semester hours.

Applications of the concepts, tools and techniques in modern financial theory to analyze corporate financial decision-making; topics include financial statements, ratio analysis, risk return trade-off, bond and stock valuation, cost of capital and capital structure, dividend policy, capital budgeting, corporate restructuring, and multinational financial management.

Prerequisites: FINA 5300 or FINA 5003.

FINA 5331 Investment Analysis and Management: 3 semester hours.

Fundamentals of securities, markets, and investments; analysis of risk and return; valuation of fixed income securities and stocks; options futures contracts; investment companies; portfolio theory and management.

Prerequisites: FINA 5300 or FINA 5003.

FINA 5333 International Finance: 3 semester hours.

Study of international financial markets and exchange rate systems; topics include exchange rates determination, international arbitrage and parity conditions, currency derivatives, country risk analysis, direct foreign investments, and international banking. Exchange rate risk measurements and management, international capital structure and cost of capital, and multinational cash and capital budgeting will also be analyzed.

Prerequisites: FINA 5003 or FINA 5300.

FINA 5338 Fin Mrkt and Inst: 3 semester hours.

Study of financial markets, domestic and international, and their interrelationship through financial institutions in determining interest rates and asset prices and the flow of funds; Federal Reserve System and its role; regulation of financial markets and institutions; risk management of important financial institutions.

Prerequisites: FINA 5300 or FINA 5003 and (ECON 5300 or ECON 5003).

FINA 5357 Case Studies in Finance: 3 semester hours.

Application and integration of financial concepts, theories and techniques to analyze and solve financial problems facing corporations using real simulated cases. Topics include valuation, capital budgeting, capital structure, dividend policy, corporate restructure, bankruptcy, and ethics.

Prerequisites: FINA 5103 or FINA 5310.

Management Information Systems Courses

MISY 1305 Business Computer Applications: 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 2301 Fundamentals of MIS with ERP: 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 ERP.

Prerequisites: MISY 1305 or MISY 1013.

MISY 2315 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 2301 or MISY 2013.

MISY 3311 Introduction to Crisis Informatics: 3 semester hours.

Use of information and communication technologies (ICT) in crisis management; examines how information is managed, organized, coordinated, and used for crisis management; analyzes information needs and seeking behaviors during a crisis; explores how ICT can support organizations/communications in a crisis.

Prerequisites: MISY 2301 or MISY 2013.

MISY 3332 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 2301 or MISY 2013.

MISY 3339 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 2301 or MISY 2013.

MISY 3341 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 2301 or MISY 2013.

MISY 3342 System Analysis & 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 problem-solving and modeling software tools.

Prerequisites: MISY 2301 or MISY 2013.

MISY 3343 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 2315 or MISY 2153.

MISY 3399 Independent Study in MIS: 3 semester hours.

Supervised reading, research, and/or field work on selected topics in management information system (MIS).

Prerequisites: MISY 2301 or MISY 2013.

MISY 4332 Enterprise Cybersecurity: 3 semester hours.

The course will provide students with essential knowledge in data security and the technology involved in securing data. It will also provide a forum to bring in current issues in the MIS area such as information security; big data, mobile/wireless technology, cloud computing and project management. Students will gain insight into the importance of cybersecurity and the integral role of cybersecurity professionals in data security. Cross-Listed Course: CRIJ 4333

Prerequisites: MISY 3332 or MISY 3323.

MISY 4335 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 3310 or MGMT 3103 and (MISY 2301 or MISY 2013).

MISY 4345 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 3310 or MGMT 3103 and (MISY 3332 or MISY 3323).

MISY 4354 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 3341 or MISY 3413) and (MGMT 3301 or MGMT 3013).

MISY 4399 Independent Study: 3 semester hours.

Reading, research, and/or field work on selected topics.

MISY 5310 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 5331 Crisis Informatics: 3 semester hours.

The course explores the use of information and communication technologies (ICT) in crisis management. In particular, it examines how information (including social media data) is managed, organized, coordinated, and used for crisis management. This course also analyzes information needs and seeking behaviors during a crisis, and explores how ICT can support organizations/communities in a crisis.

Prerequisites: MISY 5310 or MISY 5103.

MISY 5332 Data Com and 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 5310 or MISY 5103.

MISY 5341 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 5310 or MISY 5103.

MISY 5342 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 5310 or MISY 5103.

MISY 5347 Bus Intelligence and Analytics: 3 semester hours.

Covers relevant topics such as intelligence, data analytics, big data, business process, OLAP, data warehousing, data marts, data mining, and data access tools.

Prerequisites: MISY 5310 or MISY 5103.

MISY 5353 Special 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 5310 or MISY 5103.

Personal Finance Courses

PFIN 2310 Personal Financial Management an 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, saving and debt financing, investment in stocks and bonds, auto and home financing, insurance, retirement and estate planning.

PFIN 3312 Financial Planning and Insurance: 3 semester hours.

An introduction to the financial planning process; time value of money; insurance planning, and the practice of personal financial planning by professional planners.

Prerequisites: FINA 1307 or FINA 2103.

PFIN 4311 Retirement Planning and Employee Benefits: 3 semester hours.

The course provides students with knowledge of the different types of public and private retirement and benefit plans; specifics and operations of these plans are analyzed as well as their regulatory framework; application of these plans is stressed in such areas as needs evaluation and analysis, strategies for different life-cycle circumstances, and medical issues.

Prerequisites: PFIN 3123 or PFIN 3312.

PFIN 4312 Estate Planning: 3 semester hours.

The course focuses on the efficient conservation and transfer of wealth, consistent with the client's goals; presents legal, tax, financial, and non-financial aspects of the process, covering such topics as wills, trusts, probate, advanced directives (living wills), charitable giving, wealth transfers and related taxes.

Prerequisites: ACCT 3333 and (PFIN 3123 or PFIN 3312).

PFIN 4343 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 under various economic, political and regulatory situations; client presentation; use of case analysis, emphasis on ethics and professional conduct.

Prerequisites: ACCT 3333 and FINA 3333 and (PFIN 3123 or PFIN 3312) and (PFIN 4113 or PFIN 4311) and (PFIN 4123 or PFIN 4312).

Real Estate Courses

REST 3311 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 2302 or ACCT 2123) and (ECON 2302 or ECON 2113).

REST 3322 Real Estate Finance: 3 semester hours.

The course introduces various aspects of real estate finance; covers all market sectors and funding sources with concentration on residential lending and secondary market for first mortgage loans; satisfies educational licensing requirement as prescribed by the Texas Real Estate License Act. Prerequisites: REST 3311 or REST 3113.

REST 3325 Real Estate Investment: 3 semester hours.

The course provides an introduction to real estate investments including analysis of real estate investment alternatives; feasibility and site analysis; tax considerations; income and expense analysis; discounted cash flow analysis; and profitability measurement. Prerequisites: REST 3311 or REST 3113.

REST 3399 Independent Study in Real Estate: 3 semester hours.

Supervised reading, research, and/or field work on selected topics in real estate area. Prerequisites: REST 3311 or REST 3113.

Department of Accounting, Finance, and Management Information Systems, Undergraduate

Purpose and Goals

The Department of Accounting, Finance, & MIS offers the Bachelor of Business Administration (BBA) in the following major areas of study: Accounting, Finance and Management Information System (MIS).

The BBA in 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 and professional education (CPA). Students are provided an accounting curriculum built upon a general business education in a liberal arts setting which encourages analytical and creative strategic thinking, as well as ethical conduct that fosters positive competition to develop confident, global-minded professionals with knowledge and skills to become leaders in their organizations. The program learning environment is based on open communication and interaction among faculty, students and potential employers. It provides a structured practical experience through student internship opportunities.

The BBA in 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 and a professional career. It seeks to provide students with a comprehensive and contemporary education in financial concepts and practices which prepares the graduates to respond to a dynamic national and global environment in the workplace. 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 BBA in 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 possess knowledge 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 professionals, the program provides an intense learning environment built on student, faculty, and corporate interaction.

Departmental Requirements

The Department of Accounting, Finance, & MIS offers Bachelor of Business Administration (BBA) degree in the areas of Accounting, Finance and Management Information System (MIS). It also offers a concentration in Energy Trading in the BBA Finance.

Special Emphasis Options

4+1 Program in Accounting

The 4+1 program in accounting is designed to help accounting students move seamlessly into the Masters of Science in Accounting program upon completion of the Bachelor of Business Administration (BBA) program in accounting. Eligible students are allowed to earn **dual credit** (i.e., double-count) in two graduate courses (6 SCH) in the senior year toward meeting the degree requirements of both BBA and MS programs.

In addition to the enhancement of knowledge in the accounting discipline, the 4+1 program helps students academically prepare for the rigorous CPA exam. Students enrolled in the program become 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 MS in Accounting and MBA programs, see the Graduate Programs in the Business section of the Academic Catalog.

Certified Public Accountant (CPA) Exam

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 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 MS Accounting program to become eligible for the CPA examination (150 hours). Joining the 4+1 program provides smooth transition into the MS program. For additional information on the MS in Accounting program, consult the Academic Catalog under the Department of Accounting, Finance, & MIS Graduate Program.

The Department of Accounting, Finance, and Management Information Systems offers degrees in the following undergraduate programs:

Program	Degree Offered
Accounting	BBA
Finance	BBA
Management Information Systems	BBA

Accounting, BBA

Bachelor of Business Administration in Accounting Degree Program Requirements

Complete Core Curriculum Listing at <https://catalog.pvamu.edu/universitycorecurriculum/>

Core Curriculum 42 Credit Hours

Communication (Select two courses)		6
ENGL 1301	Freshman Composition I ¹	
ENGL 1302	Freshman Composition II ¹	
Mathematics		3
MATH 1314	College Algebra ¹	
Life and Physical Sciences (Select Two)		6
Language, Philosophy, and Culture (Select One)		3
Creative Arts (Select One)		3
American History (Select Two)		6
Government/Political Sciences		6
POSC 2305	American Government	
POSC 2306	Texas Government	
Social and Behavioral Sciences		3
ECON 2301	Principles of Macroeconomics	
Component Area Option One		3
FINA 2313	Financial Planning from a Global Perspective	
Component Area Option Two		3
MISY 1305	Business Computer Applications	
General Education Supplement for Accounting Majors (18 SCH)		
MATH 1324	Finite Mathematics ¹	3
ECON 2302	Principles of Microeconomics	3
ECON Elective (3000 - 4000 Level) ²		3
MGMT 1316	Quantitative Business Analysis	3
MGMT 2000	Prof Development for Business	0
MGMT 3301	Business Statistics	3
ACCT 3324	Ethics for Accountants	3
College Requirements (33 SCH)		
ACCT 2301	Principles of Accounting	3
ACCT 2302	Principles of Managerial Accounting	3
BCOM 3330	Business Communication	3
BLAW 2301	Legal Environment of Business	3
FINA 3310	Principles of Finance	3
MISY 2301	Fundamentals of MIS with ERP	3
MGMT 1301	Introduction to Business	3

MGMT 3310	Principles of Management	3
MGMT 4000	Professional Development For Business II	0
MGMT 4330	Strategic Management and Business Policy	3
MGMT 4333	Production and Operations Management	3
MRKT 3310	Principles of Marketing	3
Major Area Requirements (33 SCH)		
ACCT 3321	Intermediate Accounting I	3
ACCT 3322	Intermediate Accounting II	3
ACCT 3331	Cost Accounting	3
ACCT 3333	Federal Income Tax I	3
ACCT 4322	Auditing	3
ACCT 4321	Advanced Accounting	3
ACCT 4331	Accounting Information Systems	3
ACCT 4333	Accounting Data Analytics	3
BLAW 2321	Business Law	3
ACCT Electives (3000-4000 Level) ²		6
Total Hours		126

¹ A grade of "C" or better is required. Also, a grade of "C" or better is required in all business courses used to satisfy graduation requirements.

² Electives must be at the junior/senior level; internship/co-op courses cannot be used as major area electives.

Bachelor of Business Administration in Accounting Degree Sequence

Core: <https://catalognext.pvamu.edu/universitycorecurriculum/> (p. 553)

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Communication Core		3 Communication Core	3
ENGL 1301		ENGL 1302	
MGMT 1301		3 Component Area Option One Core	3
Government/Political Science Core		3 FINA 2313	
POSC 2305		Component Area Option Two Core	3
Mathematics Core		3 MISY 1305	
MATH 1314		American History Core	3
MGMT 2000		0 Life and Physical Sciences Core	3
Life and Physical Sciences Core		3	
Total		15 Total	15

Total Hours: 30

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
ACCT 2301		3 ACCT 2302		3 ECON 2301	3
ECON 2302		3 BLAW 2301		3	
MATH 1324		3 MISY 2301		3	
American History Core		3 MGMT 1316		3	
Language, Philosophy & Culture Core		3 Government/Political Science Core		3	
		POSC 2306			
Total		15 Total		15 Total	3

Total Hours: 33

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
ACCT 3321		3 ACCT 3322	3
ACCT 3331		3 BLAW 2321	3
ACCT 3333		3 FINA 3310	3
ACCT 3324		3 MGMT 3301	3
MGMT 3310		3 MRKT 3310	3
MGMT 4000		0	
Total		15 Total	15

Total Hours: 30**Senior**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
ACCT 4331		3 ACCT 4321	3
ACCT 4322		3 ACCT Elective (3000-4000 Level)	3
ACCT 4333		3 BCOM 3330	3
ACCT Elective (3000-4000 Level)		3 MGMT 4330	3
MGMT 4333		3 Creative Arts Core	3
ECON Elective (3000-4000 Level)		3	
Total		18 Total	15

Total Hours: 33

Total Semester Credit Hours: 126

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

BBA Accounting***Degree Skills***

1. Understanding of GAAP
2. Data analysis
3. Digital technology

Concentration Skills

1. Critical thinking
2. Quantitative reasoning and logical thinking
3. Ethical behavior and decision making

Co-curricular and Extracurricular Skills

1. Professional communication
2. Interpersonal relationships and teamwork
3. Project management

Finance, BBA**Bachelor of Business Administration in Finance Degree Program Requirements**Complete Core Curriculum Listing at <https://catalog.pvamu.edu/universitycorecurriculum/>**Core Curriculum 42 Credit Hours**

Communication (Select two courses)

ENGL 1301	Freshman Composition I ¹	
ENGL 1302	Freshman Composition II ¹	
Mathematics		3
MATH 1314	College Algebra ¹	
Life and Physical Sciences (Select Two)		6
Language, Philosophy, and Culture (Select One)		3
Creative Arts (Select One)		3
American History (Select Two)		6
Government/Political Science		6
POSC 2305	American Government	
POSC 2306	Texas Government	
Social and Behavioral Sciences		3
ECON 2301	Principles of Macroeconomics	
Component Area Option One		3
FINA 2313	Financial Planning from a Global Perspective	
Component Area Option Two		3
MISY 1305	Business Computer Applications	
General Education Supplement for Finance Majors (18 SCH)		
MATH 1324	Finite Mathematics ¹	3
ECON 2302	Principles of Microeconomics	3
ECON Elective (3000 - 4000 Level) OR ²		3
FINA 4338	Derivative Securities ³	
MGMT 1316	Quantitative Business Analysis	3
MGMT 3301	Business Statistics	3
MGMT 2320	Leadership and Ethics	3
College Requirements (33 SCH)		
ACCT 2301	Principles of Accounting	3
ACCT 2302	Principles of Managerial Accounting	3
BCOM 3330	Business Communication	3
BLAW 2301	Legal Environment of Business	3
FINA 3310	Principles of Finance	3
MISY 2301	Fundamentals of MIS with ERP	3
MGMT 1301	Introduction to Business	3
MGMT 2000	Prof Development for Business	0
MGMT 3310	Principles of Management	3
MGMT 4000	Professional Development For Business II	0
MGMT 4330	Strategic Management and Business Policy	3
MGMT 4333	Production and Operations Management	3
MRKT 3310	Principles of Marketing	3
Major Area Requirements (27 SCH)		
FINA 3333	Investment Analysis	3
FINA 3338	Financial Markets and Institutions	3
FINA 4321	Managerial Finance	3
FINA 4331	Investment Management	3
FINA Electives (3000-4000 Level) OR ²		6
FINA 3323	Trade Floor Dynamics ³	
FINA 4350	Trading Risk Management ³	
ACCT 3321	Intermediate Accounting I	3
Select one of the following:		3
ECON 4321	Intermediate Microeconomic Analysis	
ECON 4322	Intermediate Macroeconomic Analysis	
PSYC 2301	General Psychology	3

Business Elective OR ¹		3
FINA 3339	Finance Internship I ³	
Total Hours		123

¹ A grade of "C" or better is required. Also, a grade of "C" or better is required in all business courses used to satisfy graduation requirements.

² Electives must be at the junior/senior level; internship/co-op courses cannot be used as major area electives but only as business electives with the approval of the department head.

³ Courses required for Energy Trading Concentration: FINA 3323, FINA 3339, FINA 4338, and FINA 4350

Bachelor of Business Administration in Finance Degree Sequence

Core: <https://catalognext.pvamu.edu/universitycorecurriculum/> (p. 553)

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Communication Core		3 Communication Core	3
ENGL 1301		ENGL 1302	
Component Area Option One Core		3 Component Area Option Two Core	3
FINA 2313		MISY 1305	
Government/Political Science Core		3 American History Core	3
POSC 2305		MATH 1314	3
MGMT 1301		3 Life and Physical Sciences Core	3
Life and Physical Sciences Core		3	
MGMT 2000		0	
Total		15 Total	15

Total Hours: 30

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
ACCT 2301		3 ACCT 2302		3 Creative Arts Core	3
ECON 2301		3 ECON 2302		3	
MATH 1324		3 MGMT 1316		3	
Government/Political Science Core		3 American History Core		3	
POSC 2306		BLAW 2301		3	
Language, Philosophy & Culture Core		3			
Total		15 Total		15 Total	3

Total Hours: 33

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
ACCT 3321		3 FINA 3338	3
FINA 3310		3 MGMT 3301	3
MISY 2301		3 FINA 3333	3
MGMT 3310		3 MRKT 3310	3
ECON Elective (3000-4000 Level)		3 MGMT 2320	3
or FINA 4338 ¹		MGMT 4000	0
Total		15 Total	15

Total Hours: 30

Senior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
MGMT 4330		3 ECON 4321 or 4322	3
FINA 4321		3 MGMT 4333	3

FINA Elective (3000-4000 Level) or FINA 3322 ¹	3 FINA 4331 FINA Elective (3000-4000 Level)	3 3
BCOM 3330	3 or FINA 4350 ¹	
Business Elective or FINA 3393 ¹	3 PSYC 2301	3
Total	15 Total	15

Total Hours: 30

Total Semester Credit Hours: 123

¹ Course required for Energy Trading Concentration.

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

BBA Finance

Degree Skills

1. Understanding financial markets and the global economy
2. Financial and managerial accounting skills
3. Digital technology

Concentration Skills

1. Critical thinking
2. Quantitative reasoning and logical thinking
3. Ethical behavior and decision making

Co-curricular and Extracurricular Skills

1. Professional communication
2. Interpersonal relationships and teamwork
3. Project management

Management Information Systems, BBA

Bachelor of Business Administration in Management Information Systems Degree Program Requirements

Complete Core Curriculum Listing at <https://catalog.pvamu.edu/universitycorecurriculum/>

Core Curriculum 42 Credit Hours

Communication (Select two courses)		6
ENGL 1301	Freshman Composition I ¹	
ENGL 1302	Freshman Composition II ¹	
Mathematics		3
MATH 1314	College Algebra ¹	
Life and Physical Sciences (Select Two)		6
Language, Philosophy, and Culture (Select One)		3
Creative Arts (Select One)		3
American History (Select Two)		6
Government/Political Science		6
POSC 2305	American Government	
POSC 2306	Texas Government	
Social and Behavioral Sciences		3

ECON 2301	Principles of Macroeconomics	
Component Area Option One		3
FINA 2313	Financial Planning from a Global Perspective	
Component Area Option Two		3
MISY 1305	Business Computer Applications	
General Education Supplement for Management Information Systems Majors (18 SCH)		
MATH 1324	Finite Mathematics ¹	3
ECON 2302	Principles of Microeconomics	3
ECON Elective (3000 - 4000 Level) ²		3
MGMT 1316	Quantitative Business Analysis	3
MGMT 3301	Business Statistics	3
MGMT 2320	Leadership and Ethics	3
College Requirements (33 SCH)		
ACCT 2301	Principles of Accounting	3
ACCT 2302	Principles of Managerial Accounting	3
BLAW 2301	Legal Environment of Business	3
BCOM 3330	Business Communication	3
FINA 3310	Principles of Finance	3
MISY 2301	Fundamentals of MIS with ERP	3
MGMT 1301	Introduction to Business	3
MGMT 2000	Prof Development for Business	0
MGMT 3310	Principles of Management	3
MGMT 4000	Professional Development For Business II	0
MGMT 4330	Strategic Management and Business Policy	3
MGMT 4333	Production and Operations Management	3
MRKT 3310	Principles of Marketing	3
Major Area Requirements (27 SCH)		
MISY 2315	Object-Oriented Programming Applications in Business	3
MISY 3332	Networking	3
MISY 3341	Business Database Applications	3
MISY 3342	System Analysis & Design	3
MISY 3343	JAVA Applications in Business	3
MISY 4354	Predictive Analytics	3
PSYC 2301	General Psychology	3
Management Information System Electives (3000-4000 Level) ²		6
Business Elective ¹		3
Total Hours		123

¹ A grade of "C" or better is required. Also, a grade of "C" or better is required in all business courses used to satisfy graduation requirements.

² Electives must be at the junior/senior level; internship/co-op courses cannot be used as a major area elective, but only as a business elective with the approval of the department head.

Bachelor of Business Administration in Management Information Systems Degree Sequence

Core: <https://catalognext.pvamu.edu/universitycorecurriculum/> (p. 553)

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Communication Component		3 Communication Core	3
ENGL 1301		ENGL 1302	
MGMT 1301		3 Mathematics Core	3
Government/Political Science Core		3 MATH 1314	

POSC 2305	Government/Political Science Core	3
Component Area Option Two Core	3 POSC 2306	
MISY 1305	MISY 2301	3
Life and Physical Sciences Core	3 Life and Physical Sciences Core	3
	MGMT 2000	0
Total	15 Total	15

Total Hours: 30**Sophomore**

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
ACCT 2301		3 ACCT 2302		3 Language, Philosophy & Culture Core	3
ECON 2301		3 ECON 2302		3	
MISY 2315		3 BLAW 2301		3	
MATH 1324		3 American History Core		3	
American History Core		3 MISY 3332		3	
Total		15 Total		15 Total	3

Total Hours: 33**Junior**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
MISY 3341		3 FINA 3310	3
MISY 3343		3 MGMT 3301	3
MGMT 1316		3 MISY 3342	3
Component Area Option One Core		3 MGMT 2320	3
FINA 2313		MRKT 3310	3
MGMT 3310		3	
Total		15 Total	15

Total Hours: 30**Senior**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
MISY 4354		3 MGMT 4330	3
MISY Elective (3000-4000 Level)		3 MGMT 4333	3
BCOM 3330		3 MISY Elective (3000-4000 Level)	3
Social and Behavioral Sciences Core		3 ECON Elective (3000-4000 Level)	3
PSYC 2301		Business Elective	3
MGMT 4000		0	
Creative Arts Core		3	
Total		15 Total	15

Total Hours: 30

Total Semester Credit Hours: 123

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

BBA Management Information Systems**Degree Skills**

1. Technology skills
2. Programming and coding
3. IT and operations management

Concentration Skills

1. Critical thinking
2. Quantitative reasoning and logical thinking
3. Ethical behavior and decision making

Co-curricular and Extracurricular Skills

1. Professional communication
2. Interpersonal relationships and teamwork
3. Project management

Department of Accounting, Finance, and Management Information Systems, Graduate

Graduate Programs in Business

The College of Business offers a Master of Science (MS) in Accounting degree for working executives and professionals.

The Master of Science in Accounting prepares students for careers in accounting; the MS in Accounting degree requires the successful completion of a minimum of 30 SCH.

There is no thesis option required in the MS program.

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, Executive MBA or MS programs must meet the general admission requirements outlined in the Graduate (<https://catalog.pvamu.edu/generalacademicinformation/graduate/>) section of this catalog as well as meet College of Business requirements. The admission decision is based on a combination of factors including, undergraduate cumulative GPA, an essay, an interview and professional work experience.

Regular (Degree-Status) Admission for the Master of Science in Accounting Program

Applicants must be admitted by the Office of Graduate Studies and the College of Business. Admission to the MS degree program requires the following:

1. 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. Cumulative undergraduate grade point average (GPA) of 2.75 or better on a 4.0 scale or has a GPA of 3.0 or better for the last 60 earned hours of undergraduate credit. The admissions process takes a holistic approach to review applications. Therefore, individuals with a GPA between 2.50 and 2.74 should contact the director for individual review.
3. Essay describing answering the prompt: "Please share your short-term and long-term career goals. Explain how the graduate business degree contributes to accomplishing these goals." The essay should not exceed 500 words.

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 Admission Information and Requirements (<https://catalog.pvamu.edu/admissionsinformationandrequirements/applytograduateschool/>) section of the Academic 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 applied 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 a "B" or better in the course.
5. Requesting that the university where the student took the course send an official transcript (showing the final grade) to the Director.
6. Adhering to 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 Director and the Dean must approve the Application for Admission to Candidacy. The approval of the *Application for Admission to Candidacy* is granted by the Dean upon approval from the Office of Graduate Studies. Failure to fulfill this requirement may prevent the student from enrolling in the next semester.

Accounting, MS

Master of Science in Accounting Degree Program Requirements

Degree Program

The Master of Science (MS) in Accounting degree is designed to provide advanced accounting preparation for public, private, and governmental accounting careers. The program will also help prepare as well as qualify students to sit for the Uniform CPA Examination administered by Texas State Board of Public Accountancy.

Program Learning Goals

- **Program Goal 1: Mastery of Content:** Graduates will demonstrate an ability to think critically and 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.

Master of Science in Accounting Degree Program Requirements

The MS in Accounting requires 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 MS program; these courses cannot be used to fulfill the requirements of the MS degree.

Students whose non-accounting undergraduate program contained courses whose subject matter is equivalent to that required by the prerequisite courses may be exempted from those courses. A student may also be exempted from a course through examination or transfer credit from an accredited external institution. Specific program requirements will be determined during the admission process, which includes a complete review of undergraduate transcripts and work experience.

Prerequisite Courses

ACCT 2301	Principles of Accounting	3
ACCT 2302	Principles of Managerial Accounting	3
ACCT 3321	Intermediate Accounting I	3
ACCT 3322	Intermediate Accounting II	3
ACCT 3333	Federal Income Tax I	3
ACCT 4322	Auditing	3
FINA 5300	Concepts of Finance	3
Total Hours		21

Core Courses

ACCT 5311	Advanced Auditing	3
ACCT 5312	Accounting Information Systems & Controls	3
ACCT 5317	Accounting for Managerial Decision Making	3
ACCT 5314	Accounting Theory	3
ACCT 5315	Seminar on Tax Consulting, Planning and Research	3
ACCT 5332	Data Analytics in Accounting	3
FINA 5310	Theory of Financial Management	3

Elective Courses

Select three of the following:

ECON 5310	Managerial Economics
ECON 5331	International Trade and Business
FINA 5331	Investment Analysis and Management
FINA 5333	International Finance
FINA 5338	Fin Mrkt and Inst
MGMT 5310	Organizational Behavior
MGMT 5312	Business Analytics and Modeling
MGMT 5334	Human Resource Management

MGMT 5335	Entrepreneurship and Innovation
MGMT 5361	Special Topics
MISY 5310	Management Information Systems
MISY 5332	Data Com and Network
MISY 5341	App Database Management
MISY 5342	Info Syst Analysis
MISY 5353	Special Topics in MISY
MRKT 5330	Marketing Management
MRKT 5331	International Marketing
MGMT 5399	Independent Study in Management

Total Hours**30**

Master of Science in Accounting Degree Sequence

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
ACCT 5317		3 ACCT 5311		3 ACCT 5312	3
ACCT 5332		3 ACCT 5315		3 ACCT 5314	3
FINA 5310		3 Elective		3 Elective	3
		Elective		3	
Total		9 Total		12 Total	9

Total Hours: 30

Name	Unit
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Total Semester Credit Hours: 30

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

MS Accounting

Degree Skills

1. Advanced accounting management principles
2. Competency in producing financial information
3. Familiarity with accounting regulations
4. Data analysis
5. Technology utilization

Concentration Skills

1. Critical thinking
2. Quantitative reasoning
3. Ethical decision-making

Co-curricular and Extracurricular Skills

1. Customer engagement and service
2. Advanced communication
3. Time and project management

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 areas of emphasis in the management and marketing curriculum are on problem identification, analysis, solution, decision-making, business ethics, communication, team dynamics, leadership, as well as an integration of other functional areas of business operations. Attention is given to the dynamic global business environment and to the immediate utilization of business skills in areas such as Supply Chain management and data analytics.

Specifically, the objectives of the BBA 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 BBA 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 guide their companies to promote 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 and society. The course content combines the fundamental skills of the subject matter with the analytical and quantitative tools necessary to function effectively in making rational business decisions. Course materials also emphasize the importance of data and statistical methods, 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 high ethical standards expected of business professionals are also the focus of a few courses in economics.

Program	Degree Offered
Management	BBA
Marketing	BBA

Minors in the Department of Management and Marketing

Business students taking a minor will be allowed to count a maximum of 6 SCH to fulfill both their major and minor area requirements (double count). Any additional courses that are common between the major area of study and the minor 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 2.0 in the minor areas for graduation; the student can have a maximum of one "D" grade in the courses required for the minor areas.

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

ACCT 2301	Principles of Accounting	3
ECON 1301	Fundamentals of Economics in a Global Society	3
FINA 3310	Principles of Finance	3
MISY 2301	Fundamentals of MIS with ERP	3
MGMT 3310	Principles of Management	3
MRKT 3310	Principles of Marketing	3
Total Hours		18

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

MGMT 3302	Introduction to Business Analytics	3
MISY 3341	Business Database Applications	3
MGMT 3342	Data Mining Techniques	3
MISY 4354	Predictive Analytics	3
MGMT 4343	Decision Modeling for Business Analytics (Dec. Modeling for Bus Analytic)	3
Suggested Electives (Select one course from below):		3
MISY 4335	Information Technology Project Management	
MGMT 3334	Project Management	
MGMT 3301	Business Statistics	
Total Hours		18

Requirements for a Minor in Economics

ECON 2302	Principles of Microeconomics	3
ECON 2301	Principles of Macroeconomics	3
ECON 4321	Intermediate Microeconomic Analysis	3
ECON 4322	Intermediate Macroeconomic Analysis	3
Economics Electives (3000 - 4000 Level)		6
Total Hours		18

Requirements for a Minor in Human Resources

MGMT 3311	Introduction to Organizational Behavior ¹	3
MGMT 3335	Human Resource Management ¹	3
MGMT 4335	Employment Law ²	3
Prescribed Electives (choose three)		9
MGMT 3337	Compensation and Total Rewards ³	
MGMT 3364	Employee Training and Development	
MGMT 4336	Recruitment and Staffing ³	
MGMT 4337	HR Data Analytics ⁴	
Total Hours		18

¹ Prerequisite: MGMT 3310

² Prerequisite(s): BLAW 2301, MGMT 3335

³ Prerequisite(s): MGMT 3310, MGMT 3335

⁴ Prerequisite(s): MGMT 3310, MGMT 3301, MGMT 3335

Requirements for a Minor in International Business

ECON 4334	International Trade	3
FINA 4335	International Finance	3
MGMT 4339	Cooperative Education III	3
MGMT 4341	International Environment of Business (Intl Environment of Business)	3
MRKT 4335	International Marketing	3
Foreign Language I & II		6
Total Hours		21

Requirement for a Minor in Marketing

ECON 2302	Principles of Microeconomics	3
MRKT 3310	Principles of Marketing	3
MRKT 3333	Consumer Behavior	3

MRKT 4339	Marketing Communications	3
Marketing Electives (3000 - 4000 Level)		6
Total Hours		18

Requirements for a Minor in Innovation and Entrepreneurship

MGMT 2301	Design Thinking	3
MGMT 3333	Commercializing Innovative Ideas	3
ENTR 4304	Venture Creation	3
Prescribed Electives (Select 3 courses from below):		9
ENTR 3301	Economics for Entrepreneurs	
ENTR 3302	Diversity Entrepreneurship	
ENTR 3303	Social Entrepreneurship	
ENTR 3309	Special Topics	
IEP-approved event ¹		
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 Minor in Supply Chain Management

MGMT 4332	Supply Chain Management	3
MGMT 4333	Production and Operations Management	3
SCMG 4334	Purchase Management	3
SCMG 4335	Logistics Management	3
SCMG 4336	Quality Management	3
Select one from the following:		3
MGMT 3334	Project Management	
MRKT 4341	Distribution Management	
MISY 4335	Information Technology Project Management	
Total Hours		18

Departmental Certificates

Certificate in Innovation and Entrepreneurship

The Certificate in Innovation and Entrepreneurship designed to enable non-business and business majors to gain functional knowledge and skills in business to become successful entrepreneurs.

Students must consult with their academic advisor to ensure the courses for the certificate meet the requirements of the declared degree program. If the courses do not apply to the declared degree plan, the courses for the certificate will not qualify for federal aid under CPoS requirements.

Certificate Requirements

MGMT 2301	Design Thinking	3
MGMT 3333	Commercializing Innovative Ideas	3
Entrepreneurship Elective (Select one from the courses below):		3
ENTR 3301	Economics for Entrepreneurs	
ENTR 3302	Diversity Entrepreneurship	
ENTR 3303	Social Entrepreneurship	
ENTR 3309	Special Topics	
ENTR 4304	Venture Creation	
IEP-approved event ¹		
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.

Economics Courses

ECON 1301 Fundamentals of Economics in a Global Society: 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 a basic understanding of key global economic issues.

ECON 2301 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 2302 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 3309 Seminar in Banking: 3 semester hours.

This course will expose students to key concepts related to banking products (e.g. commercial lending). The course focuses on demanders (customers) and suppliers (banks), the process through which the suppliers identify appropriate demanders while accounting for systematic (economic business cycle) and idiosyncratic risks (customer-specific or supplier-specific).

Prerequisites: ACCT 2302 or ACCT 2123 or ECON 2302 or ECON 2113 or ECON 2301 or ECON 2123.

ECON 3331 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 2302 or ECON 2113 and (ECON 2301 or ECON 2123).

ECON 3332 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 2302 or ECON 2113) and (ECON 2301 or ECON 2123).

ECON 3334 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 2302 or ECON 2113 and (ECON 2301 or ECON 2123).

ECON 4321 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 2302 or ECON 2113.

ECON 4322 Intermediate Macroeconomic Analysis: 3 semester hours.

Analysis of determinants of the aggregate level of employment, output and income of an economy.

Prerequisites: ECON 2301 or ECON 2123 and (ECON 2302 or ECON 2113).

ECON 4334 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 2302 or ECON 2113) and (ECON 2301 or ECON 2123).

ECON 4335 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 2301 or ECON 2113 and ECON 2302 or ECON 2123.

ECON 4399 Independent Study: 1-3 semester hour.

Reading, research, and/or field work on selected topics.

ECON 5300 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 5310 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.

Prerequisites: (ECON 5300 or ECON 5003) or ((ECON 2311 or ECON 2113) and (ECON 2312 or ECON 2123)).

ECON 5331 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 5300 or ECON 5003.

Economics for Executives Courses***EECO 5310 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 micro and macro 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.

Managerial Comm for Executives Courses***EMCO 5302 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.

EMCO 5320 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.

Management for Executives Courses***EMGM 5310 Data Analysis for Managerial Decision Making: 3 semester hours.***

The course provides and 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 5311 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 5330 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 5340 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 5350 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 5390 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.

Marketing for Executives Courses***EMRK 5343 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.

Entrepreneurship Courses***ENTR 3301 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 1301 or MGMT 2013.

ENTR 3302 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 2301 or MGMT 2013.

ENTR 3303 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 1301 or MGMT 2013.

ENTR 3309 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 1301 or MGMT 2013.

ENTR 4304 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.

ENTR 5336 Managing Innovation: 3 semester hours.

This course focuses on how technology and innovative processes used in managing and operating businesses impact organizational efficiency and effectiveness in meeting the demands of stakeholders. Working in teams, students will study how adopting new technology helps convert innovative ideas into profitable business opportunities in the assigned industries.

ENTR 5337 Leading Innovation: 3 semester hours.

Students will study leadership, entrepreneurship, and creativity as a component of change management. Examining theoretical and practical concepts of change management will develop our students to be organizational change agents.

ENTR 5338 Funding New Ideas: 3 semester hours.

This course will expose students to traditional and non-traditional options for finding capital to fund projects. Students will explore funding strategies and identify techniques, which encourage commercialization of their ideas. Financing and developing strategies for capitalizing their final product or service.

Management Courses

MGMT 1301 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 1316 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 1314 or MATH 1113) and (MATH 1324 or 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 leverage digital resources for career development, resume writing and analysis, interviewing, on-the-job performance and the assessment process, and career planning.

MGMT 2301 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.

Prerequisites: MGMT 1301 or MGMT 1013.

MGMT 2320 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 2326 Leadership in a Global Environment: 3 semester hours.

This course focuses on global leadership approaches in a increasingly multicultural world. Students will learn various leadership techniques and communication approaches critical to effective global leadership. Various leadership platforms including Transactional, Transformational, Authentic and contingency theory.

MGMT 3301 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 1324 or MATH 1153.

MGMT 3302 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.

Prerequisites: MGMT 3301 or MGMT 3013.

MGMT 3310 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 1301 or MGMT 1013.

MGMT 3311 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 3310 or 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 or MGMT 2301.

MGMT 3334 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 3301 or MGMT 3013) and (MGMT 3310 or MGMT 3103).

MGMT 3335 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 3310 or MGMT 3103.

MGMT 3337 Compensation and Total Rewards: 3 semester hours.

This course covers the role of the Human Resources Department as it relates to compensation and total rewards. The course explores alternative compensation philosophies used to define total rewards and the resultant impact on motivating employees to deliver superior performance ensuring organizational success.

Prerequisites: MGMT 3335 or MGMT 3353.

MGMT 3339 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 3310 or MGMT 3103.

MGMT 3342 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 3302 or MGMT 3023.

MGMT 3364 Employee Training and Development: 3 semester hours.

This course focuses on employee development and training. Topics include management role in assessing employee competencies, developing and selecting training programs for employee career development and learning as well as adaptation to organizational change.

Prerequisites: MGMT 3335.

MGMT 4000 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 4330 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 3310 or MGMT 3103) and (MRKT 3310 or MRKT 3103) and (FINA 3310 or FINA 3103).

MGMT 4332 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 3310 or MGMT 3103) and (MGMT 3301 or 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 or MGMT 3301) and (MGMT 3103 or MGMT 3310).

MGMT 4335 Employment Law: 3 semester hours.

This course covers the law governing the employment relationship. Topics include employee access to job opportunities, discriminatory employment practices, regulation of wages, hours, and benefits, occupational safety and health, unjust discharge, EEO, sexual harassment, retaliation, Title VII and IX, and regulations protecting retirement benefits.

Prerequisites: MGMT 3335 or MGMT 3353.

MGMT 4336 Recruitment and Staffing: 3 semester hours.

This course explores strategies used by companies to identify, recruit and staff top talent around the world. Topics include international as well as domestic concerns and consideration of multiple staffing levels (such as executives, mid-management, and temporary employees).

Prerequisites: MGMT 3335 or MGMT 3353.

MGMT 4337 HR Data Analytics: 3 semester hours.

The course explores HR use of data analytics to examine common HR challenges of hiring top talent, engaging workforce, managing retention and evaluating workforce diversity. Using a cost-based approach, students learn to calculate the business impact and return on investment associated with HR initiatives.

Prerequisites: MGMT 3335 or MGMT 3353.

MGMT 4339 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 4341 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 U.S. firms, expatriation and repatriation and challenges for U.S. firms, etc.

Prerequisites: MRKT 3310 or MRKT 3013 and (MGMT 3310 or MGMT 3013) and (ECON 2302 or ECON 2113) and (ECON 2301 or ECON 2123).

MGMT 4343 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 3301 or MGMT 3013.

MGMT 4345 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 4354 ERP Apps in Supply Chain: 3 semester hours.

This course is designed to provide an overview of Enterprise Resource Planning (ERP) systems and supply chain business processes and introduce the role of ERP systems to manage supply chains and make effective business decisions. During the semester, students will explore the interaction among the different business processes while simulating SAP operating environment by ERPsim.

Prerequisites: MGMT 3301 or MGMT 3013 and MGMT 4333.

MGMT 4399 Independent Study: 1-3 semester hour.

Reading, research, and/or field work on selected topics.

MGMT 5310 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 5311 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 5312 Business Analytics and Modeling: 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.

Prerequisites: (MGMT 5311 or MGMT 5113) or (MGMT 3310 or MGMT 3013).

MGMT 5332 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 5310 or ACCT 5103 and BCOM 5320 or BCOM 5203 and ECON 5310 or ECON 5103 and FINA 5310 or FINA 5103 and MRKT 5330 or MRKT 5303.

MGMT 5334 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 5335 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 5339 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 5344 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.

Prerequisites: MGMT 5312 or MGMT 5123.

MGMT 5361 Special Topics: 3 semester hours.

Explores and examines contemporary subjects and trends in business. Topics deal with issues of current importance.

MGMT 5399 Independent Study in Management: 1-3 semester hour.

Supervised readings, research, and/or field work on selected topics in management.

Marketing Courses

MRKT 3310 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 1301 or MGMT 1013.

MRKT 3311 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 3310 or MRKT 3103.

MRKT 3331 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 3310 or MRKT 3103.

MRKT 3332 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 3310 or 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 or MRKT 3310) and (PSYC 1113 or PSYC 2301).

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 or MRKT 3310.

MRKT 4334 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 3310 or MRKT 3103) and (MGMT 3301 or MGMT 3013).

MRKT 4335 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 3310 or MRKT 3103.

MRKT 4337 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 3310 or MRKT 3103.

MRKT 4339 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 3310 or MRKT 3103) and MRKT 3333.

MRKT 4341 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 3310 or MRKT 3103.

MRKT 4342 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 3310 or MRKT 3103 and (MISY 2301 or MISY 2013).

MRKT 4349 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 3310 or MRKT 3103) and MRKT 3333.

MRKT 4399 Independent Study: 3 semester hours.

Readings, research and/or field work on selected topics.

MRKT 5300 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 5330 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 5331 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 5300 or MRKT 5003.

Department of Management and Marketing, Undergraduate

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 areas of emphasis in the management and marketing curriculum are on problem identification, analysis, solution, decision-making, business ethics, communication, team dynamics, leadership, as well as an integration of other functional areas of business operations. Attention is given to the dynamic global business environment and to the immediate utilization of business skills in areas such as Supply Chain management and data analytics.

Specifically, the objectives of the BBA 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 BBA 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 guide their companies to promote 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 and society. The course content combines the fundamental skills of the subject matter with the analytical and quantitative tools necessary to function effectively in making rational business decisions. Course materials also emphasize the importance of data and statistical methods, 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 high ethical standards expected of business professionals are also the focus of a few courses in economics.

Management, BBA

Department Requirements

College of Business 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 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

Complete Core Curriculum Listing at <https://catalog.pvamu.edu/universitycorecurriculum/>

Core Curriculum 42 Credit Hours

Communication		6
ENGL 1301	Freshman Composition I ¹	
ENGL 1302	Freshman Composition II ¹	
Mathematics		3
MATH 1314	College Algebra ¹	
Life and Physical Sciences (Select Two)		6
Language, Philosophy, and Culture (Select One)		3
Creative Arts (Select One)		3
American History (Select Two)		6
Government/Political Science		6
POSC 2305	American Government	
POSC 2306	Texas Government	
Social and Behavioral Sciences		3
ECON 2301	Principles of Macroeconomics ¹	
Component Area Option One		3
FINA 2313	Financial Planning from a Global Perspective ¹	
Component Area Option Two		3
MISY 1305	Business Computer Applications ¹	
General Education Supplement for Management Majors (18 SCH) ¹		
MATH 1324	Finite Mathematics ¹	3
MGMT 1316	Quantitative Business Analysis	3
ECON 2302	Principles of Microeconomics	3

ECON Elective (3000 - 4000 Level)		3
MGMT 3301	Business Statistics	3
MGMT 2320	Leadership and Ethics	3
College Requirements (33 SCH) ¹		
ACCT 2301	Principles of Accounting	3
ACCT 2302	Principles of Managerial Accounting	3
BLAW 2301	Legal Environment of Business	3
BCOM 3330	Business Communication	3
FINA 3310	Principles of Finance	3
MISY 2301	Fundamentals of MIS with ERP	3
MGMT 1301	Introduction to Business	3
MGMT 2000	Prof Development for Business	0
MGMT 3310	Principles of Management	3
MGMT 4000	Professional Development For Business II	0
MGMT 4330	Strategic Management and Business Policy	3
MGMT 4333	Production and Operations Management	3
MRKT 3310	Principles of Marketing	3
Major Area Requirements (27 SCH) ¹		
MGMT 3302	Introduction to Business Analytics	3
MGMT 3311	Introduction to Organizational Behavior	3
MGMT 3334	Project Management	3
MGMT 3335	Human Resource Management	3
MGMT 4354	ERP Apps in Supply Chain	3
PSYC 2301	General Psychology	3
MGMT Electives (3000 - 4000 Level) - Select three of the following: ^{1, 2}		9
MGMT 3333	Commercializing Innovative Ideas	
MGMT 3342	Data Mining Techniques	
MGMT 3339	Cooperative Education II	
MGMT 4332	Supply Chain Management	
MGMT 4339	Cooperative Education III	
MGMT 4343	Decision Modeling for Business Analytics	
MGMT 4345	Special Topics in Management	
MRKT 3311	Sports, Entertainment, and Event Marketing	
MRKT 3331	Retail Management	
MRKT 3332	Salesmanship	
MRKT 4333	Advertising	
MRKT 4335	International Marketing	
MRKT 4337	Sales Management	
MRKT 4342	Fundamentals of E-Marketing	
FINA 4330	Money and Banking	
ECON 4334	International Trade	
SCMG 4334	Purchase Management	
SCMG 4335	Logistics Management	
SCMG 4336	Quality Management	
ENTR 3301	Economics for Entrepreneurs	
ENTR 3302	Diversity Entrepreneurship	
ENTR 3303	Social Entrepreneurship	
ENTR 3309	Special Topics	
ENTR 4304	Venture Creation	
Unrestricted Elective		3
Total Hours		123

¹ A grade of "C" or better is required in these courses. Business majors must earn a grade of "C" or better **in all business courses (1300 - 4399 level courses)**. Students must earn the University required passing grade "D" or better in courses used as an unrestricted elective.

² Marketing Major area required courses (e.g., MRKT 3333,4334,4339,4341,4349) **will not be counted as Management Electives** unless special approval has been obtained from Department Head. **ECON 1301 Fundamentals of Economics in a Global society will only count as an Unrestricted Elective**

Bachelor of Business Administration in Management Degree Sequence

Core: <https://catalognext.pvamu.edu/universitycorecurriculum/> (p. 553)

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Communication Core		3 Communication Core	3
ENGL 1301		ENGL 1302	
MGMT 1301		3 Component Area Option One Core	3
Government/Political Science Core		3 FINA 2313	
POSC 2305		Component Area Option Two Core	3
Mathematics Core		3 MISY 1305	
MATH 1314		Government/Political Science Core	3
MGMT 2000		0 POSC 2306	
Life and Physical Sciences Core		3 MATH 1324	3
Total		15 Total	15

Total Hours: 30

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours
ACCT 2301		3 ACCT 2302	3
PSYC 2301		3 American History Core	3
American History Core		3 ECON 2302	3
MGMT 2320		3 Social And Behavioral Sciences Core	3
MISY 2301		3 ECON 2301	
MGMT 1316		3 Life and Physical Sciences Core	3
		Creative Arts Core	3
Total		18 Total	18

Total Hours: 36

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
BLAW 2301		3 BCOM 3330	3
FINA 3310		3 MRKT 3310	3
MGMT 3310		3 MGMT 3334	3
MGMT 3301		3 MGMT 3335	3
Language, Philosophy & Culture Core		3 MGMT Elective (3000-4000 Level)	3
Total		15 Total	15

Total Hours: 30

Senior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
MGMT 3302		3 ECON Elective (3000-4000 Level)	3
MGMT 3311		3 MGMT Elective (3000-4000 Level)	3
MGMT 4333		3 MGMT 4000	0
MGMT Elective (3000-4000 Level)		3 MGMT 4330	3

Unrestricted Elective	3 MGMT 4354	3
Total	15 Total	12

Total Hours: 27

Total Semester Credit Hours: 123

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

BBA Management

Degree Skills

1. Procurement and logistics
2. Business strategy and analysis
3. Organizational behavior

Concentration Skills

1. Critical thinking
2. Quantitative reasoning and logical thinking
3. Ethical behavior and decision making

Co-curricular and Extracurricular Skills

1. Professional communication
2. Interpersonal relationships and teamwork
3. Project management

Marketing, BBA

Department Requirements

College of Business 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 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 Marketing Degree Program Requirements

Complete Core Curriculum Listing at <https://catalog.pvamu.edu/universitycorecurriculum/>

Core Curriculum 42 Credit Hours

Communication		6
ENGL 1301	Freshman Composition I ¹	
ENGL 1302	Freshman Composition II ¹	
Mathematics		3
MATH 1314	College Algebra ¹	
Life and Physical Sciences (Select Two)		6
Language, Philosophy, and Culture (Select One)		3
Creative Arts (Select One)		3
American History (Select Two)		6
Government/Political Science		6
POSC 2305	American Government	

POSC 2306	Texas Government	
Social and Behavioral Sciences		3
ECON 2301	Principles of Macroeconomics ¹	
Component Area Option One		3
FINA 2313	Financial Planning from a Global Perspective ¹	
Component Area Option Two		3
MISY 1305	Business Computer Applications ¹	
General Education Supplement for Marketing Majors (18 SCH) ¹		
MATH 1324	Finite Mathematics ¹	3
ECON 2302	Principles of Microeconomics ¹	3
ECON Elective (3000 - 4000 level course)		3
MGMT 1316	Quantitative Business Analysis ¹	3
MGMT 3301	Business Statistics ¹	3
MGMT 2320	Leadership and Ethics ¹	3
College Requirements (33 SCH) ¹		
ACCT 2301	Principles of Accounting	3
ACCT 2302	Principles of Managerial Accounting	3
BCOM 3330	Business Communication	3
BLAW 2301	Legal Environment of Business	3
FINA 3310	Principles of Finance	3
MISY 2301	Fundamentals of MIS with ERP	3
MGMT 1301	Introduction to Business	3
MGMT 2000	Prof Development for Business	0
MGMT 3310	Principles of Management	3
MGMT 4000	Professional Development For Business II	0
MGMT 4330	Strategic Management and Business Policy	3
MGMT 4333	Production and Operations Management	3
MRKT 3310	Principles of Marketing	3
Major Area Requirements (27 SCH) ¹		
MRKT 3333	Consumer Behavior	3
MRKT 4334	Marketing Research	3
MRKT 4339	Marketing Communications	3
MRKT 4341	Distribution Management	3
MRKT 4349	Marketing Strategy and Analysis	3
PSYC 2301	General Psychology	3
Marketing Electives (3000 - 4000 Level) - Select three of the following: ^{1, 2}		9
MRKT 3311	Sports, Entertainment, and Event Marketing	
MRKT 3331	Retail Management	
MRKT 3332	Salesmanship	
MRKT 4333	Advertising	
MRKT 4335	International Marketing	
MRKT 4342	Fundamentals of E-Marketing	
MRKT 4337	Sales Management	
MGMT 3333	Commercializing Innovative Ideas	
MGMT 3339	Cooperative Education II	
MGMT 4332	Supply Chain Management	
MGMT 4339	Cooperative Education III	
MGMT 3342	Data Mining Techniques	
MGMT 4343	Decision Modeling for Business Analytics	
MGMT 4354	ERP Apps in Supply Chain	
SCMG 4334	Purchase Management	
SCMG 4335	Logistics Management	

SCMG 4336	Quality Management	
ENTR 3301	Economics for Entrepreneurs	
ENTR 3302	Diversity Entrepreneurship	
ENTR 3303	Social Entrepreneurship	
ENTR 3309	Special Topics	
ENTR 4304	Venture Creation	
Unrestricted Elective		3
Total Hours		123

¹ A grade of "C" or better is required in these courses. **Business majors must earn a grade of "C" or better in all business courses (1300 - 4399 Level courses).** Students must earn the University required passing grade "D" or better in courses used as an unrestricted elective.

² Management Major area required courses (e.g., MGMT 3302, 3311, 3334, 3335) **will not be counted as Marketing Electives** unless special approval has been obtained from Department Head. **ECON 1301 Fundamentals of Economics in a Global society will not count as an Economics Elective. It can be used as an Unrestricted Elective.**

Bachelor of Business Administration in Marketing Degree Sequence

Core: <https://catalognext.pvamu.edu/universitycorecurriculum/> (p. 553)

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Communication Core		3 Communication Core	3
ENGL 1301		ENGL 1302	
MGMT 1301		3 Mathematics Core	3
Component Area Option One Core		3 MATH 1314	
FINA 2313		Component Area Option Two Core	3
Government/Political Science Core		3 MISY 1305	
POSC 2305		Government/Political Science Core	3
Life and Physical Sciences Core		3 POSC 2306	
		Life and Physical Sciences Core	3
		MGMT 2000	0
Total		15 Total	15

Total Hours: 30

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours
ACCT 2301		3 ACCT 2302	3
PSYC 2301		3 ECON 2302	3
American History Core		3 American History Core	3
MATH 1324		3 Social And Behavioral Sciences Core	3
MGMT 2320		3 ECON 2301	
Language, Philosophy & Culture Core		3 MISY 2301	3
		Creative Arts Core	3
Total		18 Total	18

Total Hours: 36

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
BCOM 3330		3 BLAW 2301	3
FINA 3310		3 MGMT 3310	3
MRKT 3310		3 MRKT 3333	3
MGMT 1316		3 MGMT 3301	3

Unrestricted Elective	3 MRKT Elective (3000-4000 Level)	3
Total	15 Total	15

Total Hours: 30

Senior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
MGMT 4333		3 MGMT 4330	3
MRKT 4334		3 MGMT 4000	0
MRKT 4339		3 MRKT 4341	3
MRKT Elective (3000-4000 Level)		3 MRKT 4349	3
ECON Elective (3000-4000 Level)		3 MRKT Elective (3000-4000 Level)	3
Total	15 Total		12

Total Hours: 27

Total Semester Credit Hours :123

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

BBA Marketing

Degree Skills

1. Sales techniques
2. Marketing strategy and analysis
3. Digital marketing and consumer behavior

Concentration Skills

1. Critical thinking
2. Quantitative reasoning and logical thinking
3. Ethical behavior and decision making

Co-curricular and Extracurricular Skills

1. Professional communication
2. Interpersonal relationships and teamwork
3. Project management

College of Juvenile Justice

Purpose and Goals

The College of Juvenile Justice offers undergraduate courses leading to a Bachelor of Science degree in Criminal Justice with five concentrations to choose from (policing, corrections, juvenile justice, legal studies, criminalistics) or no concentration selection. The College also offers graduate courses leading to a Master of Science degree in Juvenile Justice, and a Ph.D. degree in Juvenile Justice.

The College of Juvenile Justice is committed to preparing students to be nationally competitive for graduate education, leadership, and careers in criminal/juvenile justice. Its purpose is to provide education and training in juvenile justice and to produce students who will ultimately improve the juvenile justice system and work to resolve the problems of delinquency.

Instructional Organization

Program	Degree Offered
Criminal Justice	BSCJ
Juvenile Justice	BSCJ, MSJJ, PhD

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. The Texas JCPC is unique in the State of Texas and the nation and is committed to assisting with the reduction of juvenile delinquency.

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 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.

Department of Justice Studies

Purpose and Goals

The Department of Justice Studies houses the undergraduate program in Criminal Justice and the graduate programs in Juvenile Justice. These programs are designed to produce proficient graduates who can excel in various aspects of the field in leadership, service, research, innovation, and education. The students 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 program is designed to produce graduates who are skilled in improving the experiences of persons in juvenile and criminal justice systems and different child-serving organizations. Our undergraduate program is also designed to ensure that students acquire the knowledge and research skills to enter graduate programs in their chosen areas of specialization.

Instructional Organization

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

Program	Degree Offered
Criminal Justice	BSCJ
Juvenile Justice	BSCJ, MSJJ, PhD

Minors

Criminal Justice Minor

CRIJ 1301	Introduction to Criminal Justice	3
CRIJ 2328	Police Systems and Practices	3
CRIJ 2313	Correctional Systems and Practices	3
CRIJ 1306	Court Systems and Practices	3
CRIJ 1313	Juvenile Justice Systems	3
Criminal Justice Elective		3
Total Hours		18

Emergency Management & Crisis Informatics Minor

CRIJ 2344	Introduction to Homeland Security	3
CRIJ 2348	Introduction to Emergency Management	3

MISY 3311	Introduction to Crisis Informatics	3
Choose one from the following:		3
CRIJ 2311	Intro Geog Info System	
CRIJ 2381	Fundamentals of Cybersecurity	
MISY 2301	Fundamentals of MIS with ERP	
Choose one from the following:		3
CRIJ 2345	Introduction to Terrorism	
CRIJ 4641	Undergraduate Internship in Criminal Justice	
CRIJ 4391	Comparative Criminal Justice Systems	
Choose one from the following:		3
MISY 4335	Information Technology Project Management	
MISY 4332	Enterprise Cybersecurity	
MISY 4354	Predictive Analytics	
Total Hours		18

Cybersecurity Interdisciplinary Minor

Required Courses

CRIJ 2381	Fundamentals of Cybersecurity	3
GNEG 4352	Advanced Fundamentals of Cybersecurity	3
MISY 3332	Networking	3
Electives- Choose three from the following:		9
CRIJ 3348	Cyber Terrorism and Cyber Defense	
CRIJ 4347	Digital Forensics Investigations	
GNEG 4350	Cybersecurity and Public Policy	
MISY 4332/CRIJ 4333	Enterprise Cybersecurity	
PHIL 2309	Ethics of Cybersecurity	
Total Hours		18

Departmental Certificates

Homeland Security/Emergency Management Certificate

The Homeland Security/Emergency Management Certificate 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 hours 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. 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 CRIJ 2348 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. 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.

Students must consult with their academic advisor to ensure the courses for the certificate meet the requirements of the declared degree program. If the courses do not apply to the declared degree plan, the courses for the certificate will not qualify for federal aid under CPoS requirements.

Certificate Requirements

Required Courses		6
CRIJ 2344	Introduction to Homeland Security	
CRIJ 2348	Introduction to Emergency Management	
Electives - Choose two (at least one course must be an upper-level course)		6
Recommended Electives for Criminal Justice Majors		
CRIJ 2311	Intro Geog Info System	
CRIJ 2345	Introduction to Terrorism	
CRIJ 2381	Fundamentals of Cybersecurity	
CRIJ 3346	Transnational Crimes	
CRIJ 3348	Cyber Terrorism and Cyber Defense	
CRIJ 4332	Criminal Justice Management Principles	
CRIJ 4347	Digital Forensics Investigations	
CRIJ 4391	Comparative Criminal Justice Systems	
CRIJ 4641	Undergraduate Internship in Criminal Justice	
Recommended Electives for Chemistry Majors		
CHEM 1204	General Inorganic Chemistry Laboratory II	
CHEM 1304	General Inorganic Chemistry II	
CHEM 2304	General Organic Chemistry II	
Recommended Electives for Engineering Majors		
COMP 1315	Introduction to Computer Science	
COMP 4312	Computer Networks	
CVEG 3301	Environmental Engineering	
Recommended Electives for Business Majors		
ECON 2301	Principles of Macroeconomics	
ECON 2302	Principles of Microeconomics	
ECON 4334	International Trade	
FINA 4330	Money and Banking	
MISY 3311	Introduction to Crisis Informatics	
MISY 4332	Enterprise Cybersecurity	
MISY 4345	Special Topics in MIS	
MGMT 3310	Principles of Management	
Recommended Electives for Political Science Majors		
POSC 2312	Public Administration	
POSC 2350	Global Issues	
POSC 2354	State and Local Government	
POSC 3351	Comparative Politics	
POSC 3353	U.S. Foreign Policy	
POSC 3354	International Politics	
POSC 3355	African Politics	
POSC 3359	Middle East Politics	
POSC 4310	Urban Government and Politics	
Recommended Electives for Social Work Majors		
SOWK 2313	Social Work with Children and Families	
SOWK 2317	Multicultural Issues in Mental Health	
SOWK 3321	Human and Cultural Diversity Social Work	
SOWK 4334	Generalist Crisis Intervention	
SOWK 4617	Field Practicum	
Recommended Electives for Agriculture-Animal and Food Sciences Majors		

GEOG 2311	Introduction to Geographic Information System
FDSC 3358	Food Quality Assurance and Sanitation
FDSC 3359	Food Bacteriology
Recommended Electives for Nursing Majors	
NURS 4317	Community Health Nursing
Recommended Electives for Any Major	
GEOG 2311	Introduction to Geographic Information System

Total Hours**12**

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.

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.

Criminal Justice Courses

CRIJ 1301 Introduction to 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.

CRIJ 1306 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.

CRIJ 1307 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.

CRIJ 1313 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.

CRIJ 2301 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.

CRIJ 2311 Intro Geog Info 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. Cross-Listed Course: GEOG 2311.

CRIJ 2313 Correctional 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.

CRIJ 2314 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.

CRIJ 2323 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.

CRIJ 2328 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.

CRIJ 2343 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.

CRIJ 2344 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.

CRIJ 2345 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.

CRIJ 2348 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 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, an importance of the Emergency Manager will be discussed. Finally, legal issues involving emergency management will be presented.

CRIJ 2366 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.

CRIJ 2372 Theory 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.

CRIJ 2374 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.

CRIJ 2381 Fundamentals of Cybersecurity: 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.

CRIJ 2391 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.

CRIJ 3331 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.

CRIJ 3346 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 other international crimes will be reviewed.

CRIJ 3348 Cyber Terrorism and Cyber Defense: 3 semester hours.

An introduction to the realities and possibilities of cyberterrorism both from domestic and international actors. The course offers examinations of national security policies and strategies employed or available as options for cyber defense.

CRIJ 3351 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.

CRIJ 3352 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.

CRIJ 3353 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.

CRIJ 3354 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.

CRIJ 3362 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.

CRIJ 3365 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.

CRIJ 3373 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.

CRIJ 3382 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.

CRIJ 3393 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.

CRIJ 4332 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.

CRIJ 4333 Enterprise Cyber Security: 3 semester hours.

The course will provide students with essential knowledge in data security and the technology involved in securing data. It will also provide a forum to bring in current issues in the MIS area such as information security, big data, mobile/wireless technology, cloud computing, and project management. Students will gain insight into the importance of cybersecurity and the integral role of cybersecurity professionals in data security. Cross-Listed Course: MISY 4332

Prerequisites: MISY 3332 or MISY 3323 and (MISY 2301 or MISY 2013) and (MISY 1305 or MISY 1013).

CRIJ 4347 Digital Forensics Investigations: 3 semester hours.

An introduction to the principles, practices, and common tools currently utilized by digital forensic investigators. The course offers practice utilizing the procedures and techniques for digital investigators involving various technological devices, networks, and cloud spaces. It reviews the relevant investigative standards for digital evidence in legal proceeding and expected credentials to utilize various digital investigative devices responsibly.

CRIJ 4349 Contemporary Issues: 3 semester hours.

Focus on recent significant and controversial issues which affect the administration of justice especially in law enforcement, the courts and corrections.

CRIJ 4354 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.

CRIJ 4355 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.

CRIJ 4356 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 enterprise crime investigations along with the investigative tools and techniques will be discussed.

CRIJ 4361 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.

CRIJ 4362 Evidence Processing: 3 semester hours.

The course introduces students to analysis of Latent Print and trail (blood, tire tracks, liquids, etc.) processing. Primary emphasis is on fingerprint evidence, crime scene management, recognition, documentation, preservation, and processing of crime scene evidence.

CRIJ 4365 Constitutional Rights of the Criminally Accused: 3 semester hours.

A study of the rights of the criminally accused according to the United States Constitution.

CRIJ 4379 Women in Criminal Justice: 3 semester hours.

An Ideological and historical analysis of the role of women and criminal justice as reformers, professional, scholars and as offender.

CRIJ 4383 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: CRIJ 3382.

CRIJ 4391 Comparative Criminal Justice Systems: 3 semester hours.

An analysis of criminal justice systems and institutions outside of the United States.

CRIJ 4392 Criminology: 3 semester hours.

Focus will be a comprehensive analysis of the sociological, psychological and biological aspects of deviant human behavior.

CRIJ 4395 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).

CRIJ 4396 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.

CRIJ 4398 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.

CRIJ 4399 Independent Study: 3 semester hours.

Readings, research or fieldwork on selected topics.

CRIJ 4641 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.

CRIJ 4671 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.

Juvenile Justice Courses

JJUS 5311 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 5312 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 5322 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 5324 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 5325 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 5326 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 5343 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 5344 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 5312 or JJUS 5123 and (JJUS 5376 or JJUS 5763) and (JJUS 5394 or JJUS 5943).

JJUS 5345 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 5352 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 5376 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 5377 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 5378 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 5391 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 5394 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 5312 or JJUS 5123) and (JJUS 5376 or JJUS 5763).

JJUS 5396 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 regression and nonparametric methods. Students learn the use and value of each statistical technique.

Prerequisites: JJUS 5312 or JJUS 5123 and (JJUS 5376 or JJUS 5763) and (JJUS 5394 or JJUS 5943).

JJUS 5397 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 5698 Thesis: 6 semester hours.

Independent and original research leading to an acceptable master's thesis.

JJUS 7165 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 7311 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 7363 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 7364 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 7365 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 7366 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 7367 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 7369 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 7371 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 7374 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 7376 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 7378 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 7385 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 7386 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 7388 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 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 7389 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.

JJUS 7392 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 or JJUS 5394.

JJUS 7395 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 7392 or JJUS 7943 and (JJUS 7396 or JJUS 7963).

JJUS 7396 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 5396 or JJUS 5963.

JJUS 7397 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 7396 or JJUS 7963.

JJUS 7399 Independent Study: 1 semester hour.

Readings, research and/or field work on selected topics.

JJUS 8191 Dissertation: 1 semester hour.

Independent and original research leading to an acceptable doctoral dissertation. May be repeated.

JJUS 8391 Dissertation I: 3 semester hours.

Independent and original research leading to an acceptable doctoral dissertation. May be repeated.

JJUS 8392 Dissertation II: 3 semester hours.

Independent and original research leading to an acceptable doctoral dissertation. May be repeated.

Prerequisites: JJUS 8391 or JJUS 8913.

JJUS 8393 Dissertation III: 3 semester hours.

Independent and original research leading to an acceptable doctoral dissertation. May be repeated.

Prerequisites: JJUS 8392 (may be taken concurrently) or JJUS 8923 (may be taken concurrently).

JJUS 8394 Dissertation IV: 3 semester hours.

Independent and original research leading to an acceptable doctoral dissertation. May be repeated.

Prerequisites: JJUS 8393 (may be taken concurrently) or JJUS 8933 (may be taken concurrently).

Department of Justice Studies, Undergraduate

Bachelor of Science in Criminal Justice and Juvenile Justice

The Department of Justice Studies houses undergraduate programs leading to Bachelor of Science degrees in Criminal Justice and Juvenile Justice. The Criminal Justice degree has five concentrations to choose from (policing, corrections, juvenile justice, legal studies, and criminalistics) or no concentration selection.

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, BSCJ

Bachelor of Science in Criminal Justice

The Department of Justice Studies houses undergraduate programs leading to Bachelor of Science degrees in Criminal Justice and Juvenile Justice. The Criminal Justice degree has five concentrations to choose from (policing, corrections, juvenile justice, legal studies, and criminalistics) or no concentration selection.

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

Complete Core Curriculum Listing at <https://catalog.pvamu.edu/universitycorecurriculum/>

Core Curriculum 42 Credit Hours

Communication Core (Select Two)	6
Mathematics (Select One)	3
Life and Physical Sciences (Select Two)	6
Language, Philosophy, and Culture (Select One)	3
Creative Arts (Select One)	3

American History (Select Two)	6
Government/Political Science	6
POSC 2305 American Government	
POSC 2306 Texas Government	
Social and Behavioral Sciences (Select One)	3
Component Area Option One (Select One)	3
Component Area Option Two (Select One)	3
College of Juvenile Justice Language Requirements	6
Foreign Language Electives (One Language; One Sequence)	
Support Area Requirement	3
Select one from the following:	
MATH 1342 Elementary Statistics	
PSYC 2317 Statistical Methods in Psychology	
SOCG 4305 Social Statistics	
Major Requirements for Criminal Justice	27
CRIJ 1301 Introduction to Criminal Justice	
CRIJ 1306 Court Systems and Practices	
CRIJ 1313 Juvenile Justice Systems	
CRIJ 2313 Correctional Systems and Practices	
CRIJ 2328 Police Systems and Practices	
CRIJ 3362 Criminal Law	
CRIJ 3382 Criminal Justice Research Methods I	
CRIJ 4392 Criminology	
CRIJ 4398 Ethical Decision-Making in Criminal Justice	
Unrestricted Electives ¹	27
Concentration Courses or CJ Electives if no Concentration is selected	15
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.

Bachelor of Science in Criminal Justice Degree Sequence

Core: <https://catalog.pvamu.edu/universitycorecurriculum/>

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Communication Core		3 Communication Core	3
Mathematics Core		3 Life and Physical Science Core	3
Language, Philosophy & Culture Core		3 Creative Arts Core	3
American History Core		3 American History Core	3
CRIJ 1301		3 CRIJ 1306	3
Total		15 Total	15

Total Hours: 30

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Life and Physical Sciences Core		3 Social and Behavioral Sciences Core	3
Government/Political Science Core		3 Government/Political Science	3
POSC 2305		POSC 2306	
Component Area Option One Core		3 Support Required Social Statistics	3

CRIJ 2328	3 CRIJ 1313	3
CRIJ 2313	3 Unrestricted Elective	3
Total	15 Total	15

Total Hours: 30

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Component Area Option Two Core		3 Foreign Language II	3
Foreign Language I		3 Concentration or CRIJ Elective	3
Concentration or CRIJ Elective		3 CRIJ 3382	3
CRIJ 3362		3 Unrestricted Elective	3
Concentration or CRIJ Elective		3 Unrestricted Elective	3
Total		15 Total	15

Total Hours: 30

Senior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
CRIJ 4392		3 Unrestricted Elective	3
CRIJ 4398		3 Concentration or CRIJ Elective	3
Unrestricted Elective		3 Concentration or CRIJ Elective	3
Unrestricted Elective		3 Unrestricted Elective	3
Unrestricted Elective		3 Unrestricted Elective	3
Total		15 Total	15

Total Hours: 30

Name	Unit
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Total Semester Credit Hours: 120

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skills that are valued by employers, and can be either primary or complimentary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

BSCJ Criminal Justice

Degree Skills

1. Working knowledge and application of criminal justice terminology
2. Ability to supervise and manage workforce and clients
3. Ability to work with diverse individuals and communities with issues related to criminal justice and social justice.
4. Effective use of verbal communication in the workplace
5. Written and communication skills appropriate in criminal justice service agencies.
6. Problem-solving skills

Concentration Skills

1. Appropriate use of terminology related to their area of concentration (Policing, Corrections, Legal Studies, Juvenile Justice, Criminalistics)
2. Effective understanding and application of knowledge to their area of concentration (Policing, Corrections, Legal Studies, Juvenile Justice, Criminalistics)
3. Working knowledge of legal analysis
4. Ability and interest in working with children and adolescents
5. Working knowledge of crime trends and analysis
6. Management skills in various settings such as Social Services, Emergency Management

Co-curricular and Extracurricular Skills

1. Leadership
2. Time management
3. Teamwork
4. Good judgment and work ethic
5. Cultural competency and awareness of diversity issues
6. Grit
7. Resourcefulness

Juvenile Justice, BSCJ

Bachelor of Science in Juvenile Justice Degree Program Requirements

Complete Core Curriculum Listing at <https://catalog.pvamu.edu/universitycorecurriculum/>

Core Curriculum 42 Credit Hours

Communication Core (Select Two)	6
Mathematics (Select One)	3
Life and Physical Sciences (Select Two)	6
Language, Philosophy, and Culture (Select One)	3
Creative Arts (Select One)	3
American History Core (Select Two)	6
Government/Political Science	6
POSC 2305 American Government	
POSC 2306 Texas Government	
Social and Behavioral Sciences (Select One)	3
Component Area Option One (Select One)	3
Component Area Option Two (Select One)	3

College of Juvenile Justice Language Requirements 6

Foreign Language Electives (One Language; One Sequence)

Support Area Requirements 3

Select one from the following:

MATH 1342 Elementary Statistics	
PSYC 2317 Statistical Methods in Psychology	
SOCG 4305 Social Statistics	

Major Requirements for Juvenile Justice 36

CRIJ 1301 Introduction to Criminal Justice	
CRIJ 1306 Court Systems and Practices	
CRIJ 1313 Juvenile Justice Systems	
CRIJ 2313 Correctional Systems and Practices	
CRIJ 2328 Police Systems and Practices	
CRIJ 2372 Theory and Development of Juvenile Gangs	
CRIJ 2374 Law of Juvenile Justice	
CRIJ 3362 Criminal Law	
CRIJ 3373 Juvenile Probation and Parole	
CRIJ 3382 Criminal Justice Research Methods I	
CRIJ 4392 Criminology	
CRIJ 4398 Ethical Decision-Making in Criminal Justice	

Two Criminal Justice Electives 6

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.

Bachelor of Science in Juvenile Justice Degree Sequence

Core: <https://catalog.pvamu.edu/universitycorecurriculum/>

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Communication Core		3 Communication Core	3
Mathematics Core		3 Life and Physical Sciences Core	3
Language, Philosophy & Culture Core		3 Creative Arts Core	3
American History Core		3 American History Core	3
CRIJ 1301		3 CRIJ 1306	3
Total		15 Total	15

Total Hours: 30

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Life and Physical Sciences Core		3 Social and Behavioral Sciences Core	3
Government/Political Science Core POSC 2305		3 Government/Political Science Core POSC 2306	3
Component Area Option One Core		3 Support Required Social Statistics	3
CRIJ 2313		3 CRIJ 1313	3
CRIJ 2328		3 Unrestricted Elective	3
Total		15 Total	15

Total Hours: 30

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Component Area Option Two Core		3 Foreign Language II	3
Foreign Language I		3 CRIJ 2374	3
CRIJ 2372		3 CRIJ 3382	3
CRIJ 3362		3 Unrestricted Elective	3
CRIJ Elective		3 Unrestricted Elective	3
Total		15 Total	15

Total Hours: 30

Senior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
CRIJ 4392		3 CRIJ 3373	3
CRIJ 4398		3 CRIJ Elective	3
Unrestricted Elective		3 Unrestricted Elective	3
Unrestricted Elective		3 Unrestricted Elective	3
Unrestricted Elective		3 Unrestricted Elective	3
Total		15 Total	15

Total Hours: 30

Name	Unit
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Total Semester Credit Hours: 120

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skills that are valued by employers, and can be either primary or complimentary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

BSCJ Juvenile Justice

Degree Skills

1. Working knowledge and application of criminal justice terminology
2. Ability to supervise and manage workforce and clients
3. Ability to work with diverse individuals and communities with issues related to criminal justice and social justice.
4. Effective use of verbal communication in the workplace
5. Written and communication skills appropriate in criminal justice service agencies.
6. Problem-solving skills

Concentration Skills

1. Appropriate use of terminology related to their area of concentration (Policing, Corrections, Legal Studies, Juvenile Justice, Criminalistics)
2. Effective understanding and application of knowledge to their area of concentration (Policing, Corrections, Legal Studies, Juvenile Justice, Criminalistics)
3. Working knowledge of legal analysis
4. Ability and interest in working with children and adolescents
5. Working knowledge of crime trends and analysis
6. Management skills in various settings such as Social Services, Emergency Management

Co-curricular and Extracurricular Skills

1. Leadership
2. Time management
3. Teamwork
4. Good judgment and work ethic
5. Cultural competency and awareness of diversity issues
6. Grit
7. Resourcefulness

Department of Justice Studies, Graduate

Master of Science Degree in Juvenile Justice Program Information

The Master of Science program in Juvenile Justice (MSJJ) offers a curriculum that enables students to critically evaluate and confront the humanistic, technical, and scientific aspects of criminal and juvenile justice as applicable to juvenile delinquency prevention. This program is web-based.

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

- Enhance students' knowledge, skills, and resourcefulness related to detained and institutionalized juveniles;
- Increase student's knowledge of theoretical explanations and the etiologies of delinquency and crime;
- Assure that students engage in the humanistic, technical, and scientific aspects of delinquency and related crimes;
- 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.

Graduates will have a unique opportunity to acquire specialized competencies that should positively impact the lives of troubled youth across the state of Texas and the nation.

Admission Requirements

In addition to the general admission requirements to Graduate Studies described elsewhere in the catalog, students seeking admission to the MS 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 1,000-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 US institution of higher education. A minimum score of 79 or higher is required for the TOEFL or a minimum score of 6.0 on the IELTS.

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. In this web-based program, students may take six credit hours during each eight-week session for the fall and spring semesters. During the summer five-week sessions, a student may take six credit hours in each summer session towards completing the degree in one year.

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 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.

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 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 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 Department Head, the Dean of the College and the Dean of Graduate Studies.

Comprehensive Examination

Comprehensive examinations in the MSJJ program are an 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/>).

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 field. 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 the doctoral program, 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 the 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 persons in the field of the applicant's academic major or area of concentration who have personal knowledge of the candidate's skills and potential for doctoral-level 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 a US institution of higher education. A minimum score of 79 or higher is required for the TOEFL or a minimum score of 6.0 on the IELTS.

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 the college level, work as a 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 PhD; 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:

An interview with program faculty will be required for applicants with the strongest application package. 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 PhD program.

Applicants will be recommended to be admitted in one of two statuses: full graduate status or holistic acceptance status.

1. Doctoral-Regular graduate status is conferred on those students admitted to the program who have satisfied all admission requirements.
2. Holistic Acceptance 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. The holistic admission status may be changed when all outstanding prerequisites are met. Students who are holistically admitted must satisfy all requirements prior to being admitted to doctoral-regular 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 coursework may be taken in holistic acceptance 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 holistic acceptance status (non-prerequisite-deficiency cases), the Doctoral Committee will meet to consider placing the student in full doctoral status. Based on the evidence at hand, the Committee may recommend admission to full graduate status or dismiss from the program.

Students will not be accepted in courses unless they are in full doctoral status or holistic status within the Juvenile Justice doctoral program.

A recommendation for admission is made by the program faculty committee, the Department Head, and Dean of the College. The recommendation is submitted to the Office of Graduate Studies. Formal acceptance and notification comes from the Office of Graduate Studies.

Program Requirements

The program requires a minimum of 61 semester credit hours for the PhD. Of these hours, 43 are course work hours and 18 are dissertation hours. 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 six (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 coursework.

Residency

Students must establish coursework 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).

Leave 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 resources, nor can a student attempt comprehensive exams or defend a dissertation.

Good Standing

PhD 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 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 PhD, only grades of "B" or better indicate satisfactory completion of courses required for the PhD. 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 PhD degree within nine (9) 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. The comprehensive examination is 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 six (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 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. 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, 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 concurs. 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/>).

Full-time doctoral students in the College of Juvenile Justice generally have access to two forms of financial aid: (1) graduate assistantships (usually requiring 20 hours of work per week) for either research or teaching and (2) the tuition and fees scholarship from the university. 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.

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 twice for a maximum of three years of funding. All funded students must show exceptional potential to successfully complete the program, possessing excellent critical thought, research, and writing skills, and a commitment to the field. Assignments will likely 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 Doctoral Committee based on their graduate GPA, GRE scores, and additional evidence of preparation for doctoral study. 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 Doctoral 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 Department Head. 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.

Juvenile Justice, MSJJ

Master of Science in Juvenile Justice Degree Program Requirements

Required Courses

JJUS 5312	Foundations of Juvenile Justice	3
JJUS 5376	Theories of Delinquency	3
JJUS 5394	Research Methods	3
JJUS 5396	Applied Statistical Methods and Computing	3

Other Requirements **24**

Select Comprehensive or Thesis option below

Total Hours **36**

Comprehensive Examination Option

Select eight classes from the following: 24

JJUS 5311	Foundations of Criminal Justice
JJUS 5322	Substance Abuse
JJUS 5324	Community Building and Organizing
JJUS 5325	Domestic and Family Violence
JJUS 5326	Victimization
JJUS 5343	Correctional Programming
JJUS 5344	Alternatives to Incarceration
JJUS 5345	Law Enforcement and Juvenile Offenders
JJUS 5352	Management of Juvenile Justice Organizations
JJUS 5377	Courts and Youth Offenders
JJUS 5378	Ethics
JJUS 5391	Special Topics in Juvenile Justice
JJUS 5397	Policy Analysis and Program Evaluation

Total Hours **24**

Thesis Option

JJUS 5698 Thesis 6

Select six classes from the following: 18

JJUS 5311	Foundations of Criminal Justice
JJUS 5322	Substance Abuse
JJUS 5324	Community Building and Organizing
JJUS 5325	Domestic and Family Violence
JJUS 5326	Victimization
JJUS 5343	Correctional Programming
JJUS 5344	Alternatives to Incarceration
JJUS 5345	Law Enforcement and Juvenile Offenders
JJUS 5352	Management of Juvenile Justice Organizations
JJUS 5377	Courts and Youth Offenders
JJUS 5378	Ethics
JJUS 5391	Special Topics in Juvenile Justice
JJUS 5397	Policy Analysis and Program Evaluation

Total Hours **24**

Master of Science in Juvenile Justice Degree Sequence

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
JJUS 5312		3 JJUS 5376		3 Elective	3
JJUS 5394		3 JJUS 5396		3 Elective	3
Elective		3 Elective		3 JJUS 5698	6
Elective		3 Elective		3 or Two JJUS Electives	
Total		12 Total		12 Total	12

Total Hours: 36

Name **Unit**

Total Semester Credit Hours: 36

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skills that are valued by employers, and can be either primary or complimentary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

MSJJ Juvenile Justice

Degree Skills

1. Working knowledge and application of juvenile delinquency theories
2. Critical analysis and problem-solving
3. Management and leadership of workforce and clients
4. Effective generation and utilization of research
5. Policy development and program evaluation
6. Ability to work with diverse individuals and communities with issues related to juvenile justice and social justice

Concentration Skills

1. Appropriate use of terminology related to Juvenile Justice
2. Ability and interest in working with clients and the public
3. Working knowledge of crime and delinquency and analysis

Co-curricular and Extracurricular Skills

1. Time management
2. Teamwork
3. Good judgment and work ethic
4. Cultural competency and awareness of diversity issues
5. Resourcefulness

Juvenile Justice, PhD

Doctorate of Juvenile Justice Degree Program Requirements

Prerequisite Courses

Necessary for admission, not counted in program hours

JJUS 5312	Foundations of Juvenile Justice	3
JJUS 5376	Theories of Delinquency	3
JJUS 5394	Research Methods	3
JJUS 5396	Applied Statistical Methods and Computing	3

Total Hours **12**

Required Support Courses

JJUS 7165	Seminar in Professional Development	1
JJUS 7392	Advanced Research Methods I	3
JJUS 7395	Advanced Research Methods II	3
JJUS 7396	Advanced Statistical Techniques I	3
JJUS 7397	Advanced Statistical Techniques II	3

Required Substantive Courses in Juvenile Justice

JJUS 7311	Juv Just Issu Pract	3
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Select 6 additional credit hours from the list of courses below:

JJUS 7363	Comparative Juvenile Justice Systems:A Cross Cultural Perspective ¹	6
JJUS 7365	Seminar on Juvenile Corrections ¹	
JJUS 7374	Race, Ethnicity, Gender and Juvenile Justice	
JJUS 7376	Seminar on Juvenile Processing by Police and Courts ¹	
JJUS 7378	Legal Aspects of Juvenile Justice ¹	
JJUS 7386	Policy Analysis and Program Evaluation ¹	

Required Delinquency Theory Courses

JJUS 7367	The Juvenile Offender and Youth Gangs	3
JJUS 7389	Advanced Seminar in Crime and Delinquency Theory	3
JJUS 7388	Youth Victimization	3

Elective Courses

Select four of the following: 12

JJUS 7363	Comparative Juvenile Justice Systems:A Cross Cultural Perspective ¹	
JJUS 7364	Management and Administration	
JJUS 7365	Seminar on Juvenile Corrections ¹	
JJUS 7366	Drugs, Youth and Society	
JJUS 7369	Qualitative Methods in Social Sciences	
JJUS 7374	Race, Ethnicity, Gender and Juvenile Justice ¹	
JJUS 7371	Special Topics in Juvenile Justice	
JJUS 7376	Seminar on Juvenile Processing by Police and Courts ¹	
JJUS 7378	Legal Aspects of Juvenile Justice ¹	
JJUS 7385	Prevention and Treatment of Crime and Delinquency	
JJUS 7386	Policy Analysis and Program Evaluation ¹	

Dissertation - Total Hours 18

JJUS 8191	Dissertation	
JJUS 8391	Dissertation I	
JJUS 8392	Dissertation II	
JJUS 8393	Dissertation III	
JJUS 8394	Dissertation IV	

Total Hours 61

¹ These courses can be used in either Substantive Courses in Juvenile Justice or as an elective course.

Caution: while the course is usable in two areas (Juvenile Justice and Electives), be sure you *do not* place a course in more than one area and follow the course schedule to determine which areas you should fill first.

Doctorate of Juvenile Justice Degree Sequence**First Year**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
JJUS 7392		3 JJUS 7311	3
JJUS 7396		3 JJUS 7395	3
JJUS 7367		3 JJUS 7397	3
Total		9 Total	9

Total Hours: 18

Second Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
JJUS 7165		1 JJUS 7388	3
JJUS 7389		3 Substantive Course in Juvenile Justice or Elective (select one from list)	3
Substantive Course in Juvenile Justice or Elective (select one from list)		3 Substantive Course in Juvenile Justice or Elective (select one from list)	3
Substantive Course in Juvenile Justice or Elective (select one from list)		3	
Total		10 Total	9

Total Hours: 19

Third Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
Substantive Course in Juvenile Justice or Elective (select one from list)		3 JJUS 8391		3 JJUS 8392	3
Substantive Course in Juvenile Justice or Elective (select one from list)		3 JJUS 8392		3 JJUS 8393	3
		JJUS 8393		3 JJUS 8394	3
Total		6 Total		9 Total	9

Total Hours: 24

Name	Unit
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Total Semester Credit Hours: 61

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skills that are valued by employers, and can be either primary or complimentary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

Ph.D. Juvenile Justice

Degree Skills

1. Effective application of juvenile delinquency theories
2. Critical analysis and problem-solving
3. Management and leadership of workforce and clients
4. Effective research design
5. Policy development and program evaluation
6. Ability to work with diverse individuals and communities with issues related to juvenile justice and social justice

Concentration Skills

1. Empirical research (data collection, analyses, and scientific publication)
2. Specialists in knowledge related to Criminal Justice and Juvenile Justice
3. Ideological adaptability with evolving knowledge

Co-curricular and Extracurricular Skills

1. Time management
2. Teamwork
3. Pedagogical effectiveness
4. Academic assessment
5. Good judgment and work ethic
6. Cultural competency and awareness of diversity issues
7. Resourcefulness

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

Program	Degree Offered
Nursing	BSN
Nurse Administration	MSN
Family Nurse Practitioner	MSN

Nurse Education	MSN
Nursing Practice	DNP

Financial Aid

Financial Aid information may be obtained by visiting the Office of Financial Aid and Scholarships (<https://catalog.pvamu.edu/faid/>).

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

1801 Congress Avenue, Suite 12.200
Austin, TX 78701
(512) 427-6101

<http://www.thecb.state.tx.us/>

The Texas Board of Nursing

George H.W. Bush State Office Building
1801 Congress Avenue, Suite 10.200
Austin, Texas 78701

Office: (512) 305-7400

<http://www.bon.texas.gov/> (<http://www.bon.texas.gov/>)

Accreditation Commission for Education in Nursing

3390 Peachtree Road NE, Suite 1400
Atlanta, GA 30326
Phone: (404) 975-5000
Fax: (404) 975-5020

<http://www.acenursing.org> (<https://acenursing.org/about/>)

Commission on Collegiate Nursing Education

655 K Street, Suite 750
Washington, DC 20001
Phone: (202) 887-6791
Fax: (202) 887-8476

<https://www.aacnursing.org/CCNE> (<https://www.aacnursing.org/CCNE/>)

National Organization of Nurse Practitioner Faculties

1615 M. Street NW, Suite 270
Washington, DC 20036
tel: (202) 289-8044
fax: (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

301.2511 Criminal History Record for License Applicants

Texas Board of Nursing, Nurse Practice Act. Amended September 2007.

B. Declaratory Order Petition Request Form from the College of Nursing

Student Conduct Code and Handbook or from Texas Board of Nursing website: www.bon.state.tx.us (<http://www.bon.state.tx.us/>)

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, 2021; *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, 2021; 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

Pre-Nursing Major (Lower Division) 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 Admissions Information and Requirements (https://catalog.pvamu.edu/admissionsinformationandrequirements/undergraduate_information/) section 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.

- **Preferred 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)

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.

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.

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:

- Complete the pre-nursing (lower division) 60 required credit hours with a minimum 3.0 overall cumulative grade-point-average (GPA) and a,
- 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.

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, which can be found in PantherTracks, prior to the early registration period. Likewise, the same procedure applies to a pre-nursing major seeking a change in academic study.

Pre-Nursing Major (Upper Division Clinical Studies) Baccalaureate Nursing Program

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 Admission and 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.

Admission 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 Upper Division Clinical Studies

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.

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:

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 contingent upon receipt of the completed application package; which includes a nursing processing fee and space availability. Applicants not admitted may reapply at the next admission 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:

Grade	Meaning	Score Range	Grade Values
A	=	90-100	
B	=	81-89	
C	=	75-80	
D	=	65-74	
F	=	below 65	

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 exams
- Demonstrate professional and academic integrity

Withdrawal Policy for Clinical Studies (Upper Division)

Students are allowed only two (2) withdrawals (W) from required nursing courses. A student may withdraw from the same course only once and/or may withdraw from two different courses constituting 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

Suspension/Dismissal from the College of Nursing

A student will be suspended and/or 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-BSN 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 4340, *Nursing Process Seminar*, are administered the Comprehensive Examination.
2. Students have two (2) opportunities to take the Comprehensive Examination during the semester.
3. Students must achieve a standard score on the Comprehensive Examination as defined by the College of Nursing, which accounts for a percentage of the grade in NURS 4340.
4. Students must achieve an overall passing grade of "C" (75%) to pass NURS 4340.

Note:

1. Students who do not earn an overall passing grade of "C" (75%) in NURS 4340 and do not have a previous failure in a nursing course, are eligible to retake NURS 4340 (register and enroll) immediately in the subsequent semester, fall or spring (excluding summer session).
2. Students who do not earn an overall passing grade of "C" (75%) in NURS 4340 and 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 must apply for readmission to the University and to the College of Nursing the subsequent semester. 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 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:

- Completion of the required semester credit hours
- Achievement of a minimum 2.50 cumulative GPA
- Completion of all clinical studies upper division courses within five years of the initial admission date
- 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.

Nursing is a fulfilling, flexible, and diverse profession with over 100 areas of specialization and 180 available credentials. The profession of nursing is constantly evolving and highly specialized that encompasses health promotion, health prevention, and the care of individuals, families, communities, and population in a variety of health care, home, and community settings. The unique function of nurses ranges broadly from activities that contribute to the health, recovery, or dignified death to the development of policy, research, advocacy, and education. Nursing remains one of the most respected, flexible, and fulfilling careers with opportunities for growth and a variety of options.

Post-Master's Certificates in the College of Nursing

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.

Students must consult with their faculty advisor to ensure the courses for the certificate meet the requirements of the declared degree program. If the courses do not apply to the declared degree plan, the courses for the certificate will not qualify for federal aid under CPoS requirements.

Post-Master's Certificate - Family Nurse Practitioner Requirements

Advanced Practice Core Courses ¹

NURS 5204	Role Theory and Ethics in Advanced Practice Nursing	2
NURS 5316	Advanced Pathophysiology for Advance Practice Nursing	3
NURS 5317	Advanced Pharmacology for Advance Practice Nursing	3
NURS 5326	Advanced Health Assessment and Diagnostic Reasoning for Advanced Practice Nursing	3

Nurse Practitioner Specialty Courses

NURS 5376	Financial Management in Advanced Nursing Practice	3
NURS 5524	Primary Health Care for the Adult and Elderly with Practicum	5
NURS 5621	Primary Health Care for the Childbearing/Childrearing Family with Practicum	6
NURS 5725	Management of Complex Health Problems	7

Total Hours **32**

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 (21 SCH).

Post-Master's Certificate - Nurse Administration Requirements

Nurse Administration Courses

NURS 5340	ADM I-Organizational Theory	3
NURS 5341	ADM II-Healthcare Management	3
NURS 5342	ADM III-Healthcare Economics and Financial Management	3
NURS 5344	ADM IV - Nurse Administration Practicum	3

Graduate Business Courses or Health Informatics Electives **9**

Total Hours **21**

Post-Master's Certificate - Nurse Education Requirements

MSN Clinical Core Courses ¹

NURS 5302	Advanced Pharmacology	3
NURS 5304	Advanced Pathophysiology	3
NURS 5324	Advanced Health Assessment	3

Nurse Education Courses

NURS 5330	Program and Curriculum Design	3
NURS 5331	Instructional Methods and Strategies	3
NURS 5332	Evaluation in Nursing Education	3
NURS 5333	Nursing Education Role Practicum I: Classroom Instruction	3
NURS 5335	Nursing Education Role Practicum II: Clinical Instruction	3

Total Hours **24**

¹ MSN Clinical Core Courses must be taken if not completed within the past 5 years. Transfer credits may be accepted for the Advanced Practice Courses.

Courses

NURS 3101 Seminar I-Intro To Prof Prac: 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 3210 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 1301 or HIST 1313) and (HIST 1302 or HIST 1323) and (SOCG 1301 or SOCG 1013).

NURS 3300 Introduction to Pharmacology: 3 semester hours.

This course discusses basic concepts of pharmacology with emphasis on nursing implications.

Prerequisites: (NURS 3416 or NURS 3164) and (NURS 3326 or NURS 3263) and (MATH 1314 or MATH 1113).

NURS 3301 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 1307 or BIOL 1073) and (CHEM 1306 or CHEM 1053) and (CHEM 1106 or CHEM 1051).

NURS 3302 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 1307 or BIOL 1073) and (CHEM 1306 or CHEM 1053) and (CHEM 1106 or CHEM 1051).

NURS 3326 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 2401 or BIOL 1054) and (BIOL 2402 or BIOL 1064) and (BIOL 1307 or BIOL 1073) and (CHEM 1306 or CHEM 1053) and (CHEM 1106 or CHEM 1051).

Co-requisites: NURS 3301, NURS 3302, NURS 3416.

NURS 3327 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 3416 or NURS 3164) and (NURS 3326 or NURS 3263).

Co-requisites: NURS 3300, NURS 3417.

NURS 3332 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 3335 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 3417 or NURS 3174) and (NURS 3300 or NURS 3003).

NURS 3337 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 3338 Nurs 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 3300 or NURS 3003.

NURS 3339 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 3341 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 3416 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 1307 or BIOL 1073) and (BIOL 2401 or BIOL 1054) and (BIOL 2402 or BIOL 1064) and (HUSC 1322 or HUSC 1343).

NURS 3417 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 3300 (may be taken concurrently) or NURS 3003 (may be taken concurrently)) and (NURS 3302 (may be taken concurrently) or NURS 3023 (may be taken concurrently)) and (NURS 3416 or NURS 3164) and (NURS 3326 or NURS 3263) and (NURS 3301 or NURS 3013).

Co-requisite: NURS 3327.

NURS 3428 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 3417 or NURS 3174) and (NURS 3300 or NURS 3003) and (NURS 3327 or NURS 3273).

Co-requisites: NURS 3518, NURS 4301.

NURS 3500 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 2401 or BIOL 1054 and (BIOL 2402 or BIOL 1065).

NURS 3518 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 3417 or NURS 3174) and (NURS 3327 or NURS 3273).

Co-requisite: NURS 3428.

NURS 4203 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 or NURS 4317.

NURS 4226 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 3518 or NURS 3185) and (NURS 3428 or NURS 3284).

Co-requisite: NURS 4316.

NURS 4227 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 4318 or NURS 4183) and (NURS 4316 or NURS 4163) and (NURS 4226 or NURS 4262) and (NURS 4228 or NURS 4282).

Co-requisites: NURS 4229, NURS 4317, NURS 4319.

NURS 4228 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 client with multi-system complex health alterations. Clinical experiences in a variety of settings are used.

Prerequisites: (NURS 3518 or NURS 3185) and (NURS 3428 or NURS 3284).

Co-requisite: NURS 4318.

NURS 4229 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 4318 or NURS 4183) and (NURS 4316 or NURS 4163) and (NURS 4226 or NURS 4262) and (NURS 4228 or NURS 4282).

Co-requisites: NURS 4227, NURS 4317, NURS 4319.

NURS 4300 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 4301 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 3417 or NURS 3174) and (NURS 3300 or NURS 3003) and (NURS 3327 or NURS 3273).

NURS 4316 Mental Health Nursing: 3 semester hours.

This theory course focuses on the application of the nursing process in providing care to clients experiencing psychopathological conditions along the wellness-illness continuum.

Prerequisites: (NURS 3518 or NURS 3185) and (NURS 3428 or NURS 3284).

Co-requisite: NURS 4226.

NURS 4317 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 4316 or NURS 4163) and (NURS 4318 or NURS 4183) and (NURS 4226 or NURS 4262) and (NURS 4228 or NURS 4282).

Co-requisites: NURS 4227, NURS 4229, NURS 4319.

NURS 4318 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 3518 or NURS 3185) and (NURS 3428 or NURS 3284).

Co-requisite: NURS 4228.

NURS 4319 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 4318 or NURS 4183) and (NURS 4316 or NURS 4163) and (NURS 4226 or NURS 4262) and (NURS 4228 or NURS 4282).

Co-requisites: NURS 4227, NURS 4229, NURS 4317.

NURS 4331 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 4335 Advanced Nursing Concepts: 3 semester hours.

This course explores advanced clinical and theoretical issues relating to nursing practice.

Prerequisites: NURS 3518 or NURS 3185 and (NURS 3428 or NURS 3284).

NURS 4337 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 4338 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 4339 Nursing Care of Special Populations: Lesbian, Gay, Bisexual, Transgender, Queer/Questioning (LGBTQ): 3 semester hours.

This course examines application of the nursing process as it relates to lesbian, gay, bisexual, transgender, and queer/questioning (LGBTQ) clients.

This course provides knowledge, awareness, and skills to undergraduate nursing students that will enable them to explore health needs and provide culturally sensitive and holistic nursing care to clients who identify as LGBTQ.

Prerequisites: NURS 3301 or NURS 3013 and (NURS 3326 or NURS 3263) and (NURS 3416 or NURS 3164).

NURS 4340 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 4316 or NURS 4163) and (NURS 4318 or NURS 4183) and (NURS 4226 or NURS 4262) and (NURS 4228 or NURS 4282).

NURS 4399 Independent Study: 1-3 semester hour.

Selected topics are explored through reading, research, and/or field work.

NURS 5204 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 5300 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 5301 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 5302 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 5304 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 5314 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 5301 or NURS 5013.

NURS 5316 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 5317 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 5324 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 5326 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 5300 or NURS 5003 and (NURS 5316 or NURS 5163) and (NURS 5314 or NURS 5133).

Co-requisites: NURS 5204, NURS 5317.

NURS 5330 Program and 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 5301 or NURS 5013) and (NURS 5314 or NURS 5133) and (NURS 5302 or NURS 5023) and (NURS 5304 or NURS 5033) and (NURS 5204 or NURS 5042).

NURS 5331 Instructional Methods and 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 5330 or NURS 5303).

NURS 5332 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 5330 or NURS 5303) and (NURS 5331 or 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 or NURS 5330) and (NURS 5313 or NURS 5331) and (NURS 5323 (may be taken concurrently) or NURS 5332 (may be taken concurrently)).

NURS 5335 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 5330 or NURS 5303) and (NURS 5331 or NURS 5313) and (NURS 5332 or NURS 5323).

NURS 5340 ADM I-Organizational Theory: 3 semester hours.

This course examines organizational concepts, theories, and behavior relevant to Nurse Administration, management and health care 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 5300 or NURS 5003 and (NURS 5301 or NURS 5013) and (NURS 5314 or NURS 5133) and (NURS 5204 or NURS 5042).

NURS 5341 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 5340 or NURS 5403.

NURS 5342 ADM III-Healthcare Economics and Financial Management: 3 semester hours.

This course focuses on economics and financing in health care 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 5340 or NURS 5403) and (NURS 5341 or NURS 5413).

NURS 5344 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 5340 or NURS 5403 and (NURS 5341 or NURS 5413) and (NURS 5342 or NURS 5423).

NURS 5345 Health Informatics I: 3 semester hours.

This course is designed to introduce the foundations 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 5371 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 5376 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 5524 or NURS 5245).

Co-requisite: NURS 5621.

NURS 5377 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 5301 or NURS 5013) and (CNSL 5309 or CNSL 5093) and (NURS 5300 or NURS 5003) and (NURS 5204 or NURS 5042) and (NURS 5371 or NURS 5713) and (NURS 5304 or NURS 5033) and (NURS 5302 or NURS 5023) and (NURS 5133 or NURS 5314).

NURS 5378 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 5301 or NURS 5013 and (NURS 5314 or NURS 5133).

NURS 5380 Thesis Proposal Writing: 3 semester hours.

Concepts of research techniques and designs are explored. A research proposal is developed.

NURS 5390 Thesis: 3 semester hours.

Application of research skills to thoroughly develop thesis on topic approved by advisor.

Prerequisites: NURS 5380 or NURS 5803.

NURS 5398 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 5524 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 5302 or NURS 5023 and (NURS 5304 or NURS 5214).

NURS 5621 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 5316 or NURS 5163) and (NURS 5317 or NURS 5173) and (NURS 5326 or NURS 5263) and (NURS 5524 or NURS 5245).

NURS 5725 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 5524 or NURS 5245.

NURS 7255 DNP Project 1: Project Planning: 2 semester hours.

The goal of this course is to enhance student knowledge health care concepts that result in improvement in practice/systems outcomes and/or cost savings. Through the process of scientific inquiry, critical thinking, and strategic planning skills the DNP student will be able to create a robust project proposal and become an expert in their DNP project topic. This course also provides the opportunity for the inclusion of AACN DNP essentials.

Prerequisites: NURS 7300 or NURS 7003 and (NURS 7301 or NURS 7013) and (NURS 7302 or NURS 7023) and (NURS 7306 or NURS 7033) and (NURS 7305 or NURS 7053).

NURS 7265 DNP Project II: Project Implementation: 2 semester hours.

During this course, project proposal development will be discussed and the actual project proposal will be written. Upon successful completion of the course, the proposal will be approved by the DNP student DNP project committee and move to the IRB.

Prerequisites: NURS 7325 or NURS 7253.

NURS 7275 DNP Project III: Project Dissemination and Evaluation: 2 semester hours.

DNP students will evaluate and plan to disseminate their DNP project with the support of faculty and mentors/preceptors. This course will provide students with experiences in using data analytic software, interprofessional collaboration, leadership skills, and tools to successfully disseminate their project findings.

Prerequisites: NURS 7326 or NURS 7263.

NURS 7300 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 7301 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 7302 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 7304 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 7305 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 7306 Health Care Policy for Advocacy in Health Care: 3 semester hours.

This course 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 7312 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 7314 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 7315 Informatics for Using Telehealth in Nursing Practice: 3 semester hours.

This course focuses on the use of telehealth technologies to deliver 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 7324 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 7325 DNP Project 1: 3 semester hours.

This course is the first 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 7326 DNP Project 2: 3 semester hours.

This course is the second part of a two 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 7325 or NURS 7523.

NURS 7330 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 7338 Practice Residency: 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 7339 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 7338 or NURS 7383.

NURS 7342 Economics in Complex Healthcare: 3 semester hours.

This course introduces the students to the economy of the United States that is essential to the administration of healthcare facilities in the future. Advance nurse administrators will analyze the factors that lead to the involvement of economics in healthcare, focusing on the role, theories, models, and tools utilized. Students compare alternative uses of limited resources and synthesize the consequences of each alternative. Economics provides a mechanism for making system decisions regarding the use limited resources. Understanding the principles and models that drive the economics of healthcare is essential for all decision makers to improve the delivery of cost-effective, high quality care.

Prerequisites: NURS 7301 or NURS 7013 and (NURS 7306 or NURS 7033) and (NURS 7302 or NURS 7023).

NURS 7343 Population Health: 3 semester hours.

This course introduces complex population health issues at the local, regional, national, and global levels. Emphasis is placed on decision-making utilizing limited resources that will impact problems that drive poor health conditions. Evidence-based practice theory is utilized to identify strategies that minimize or eliminate health disparities in diverse populations. Students will focus on health promotion, chronic disease self-management, illness prevention, quality, and safety. Interprofessional strategies will be analyzed for interventions that will inform practice and policy.

Prerequisites: NURS 7301 or NURS 7013 and (NURS 7306 or NURS 7033).

Co-requisite: NURS 7302.

College of Nursing, Undergraduate

Purpose and Goals

The College of Nursing offers a Bachelor of Science in Nursing (BSN) with RN-BSN and LVN-BSN concentrations. The BSN program is a four and a half year program which prepares individuals who can practice professional nursing in a variety of clinical settings, and who are prepared to continue their education through graduate studies. The upper division clinical studies component of the nursing program is based on prerequisite courses at the lower division, which may be completed at the main campus of Prairie View A&M University or transferred from another accredited college or university. A student seeking to declare pre-nursing as a major must be admitted into the university as defined in the university catalog. Licensed nurses can continue their education to achieve the BSN degree through the distance education program.

Nursing, BSN

Degree Program Requirements

Bachelor of Science in Nursing with a major in Nursing and a Generic concentration Degree Program Requirements

Complete Core Curriculum Listing at <https://catalog.pvamu.edu/universitycorecurriculum/>

Core Curriculum 42 Credit Hours

Communication (Select Two)		6
Mathematics		3
MATH 1314	College Algebra	
Life and Physical Sciences		6
BIOL 2401	Anatomy and Physiology I	
BIOL 2402	Anatomy and Physiology II	
Language, Philosophy, and Culture (Select One)		3
Creative Arts (Select One)		3
American History (Select Two)		6
Government/Political Science		6
POSC 2305	American Government	
POSC 2306	Texas Government	
Social and Behavioral Sciences (Select One)		3
Component Area Option One (Select One)		3
Component Area Option Two (Select One)		3
Support Area Requirements (16 SCH)		
HDFM 2355	Human Development: Life Span	3
HUSC 1322	Ecology of Human Nutrition and Food	3
PSYC 2317	Statistical Methods in Psychology	3
CHEM 1306	Introductory Chemistry I	3
CHEM 1106	General Chemistry Lab	1
BIOL 1307	General Microbiology	3

Major Requirements (64 SCH)		
NURS 3300	Introduction to Pharmacology	3
NURS 3301	Individual Health Assessment	3
NURS 3302	Basic Pathophysiology	3
NURS 3416	Basic Concepts of Nursing	4
NURS 3326	Basic Concepts of Nursing Practicum	3
NURS 3417	Adult Health Nursing I	4
NURS 3327	Adult Health Nursing I Practicum	3
NURS 3518	Family Health Nursing	5
NURS 3428	Family Health Nursing Practicum	4
NURS 4301	Introduction to the Research Process	3
NURS 4316	Mental Health Nursing	3
NURS 4226	Mental Health Nursing Practicum	2
NURS 4317	Community Health Nursing	3
NURS 4227	Community Health Nursing Practicum	2
NURS 4318	Adult Health Nursing II	3
NURS 4228	Adult Health Nursing II Practicum	2
NURS 4319	Nursing Leadership and Management	3
NURS 4229	Nursing Leadership and Management Practicum	2
NURS 4340	Nursing Process Seminar	3
Nursing Electives		6
Total Hours		122

LVN-BSN Concentration

DISTANCE EDUCATION PROGRAM

Licensed Vocational Nurses (LVNs) who seek admission to the LVN-BSN Program must meet the same lower division prerequisites 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 \$40.00 application fee to the Main Campus Office of Admissions 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 ten (10) semester credit 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
 - a. National League for Nursing Acceleration Challenge Exams (ACE): Care of the Adult Client and Clinical Pharmacology
3. Upon successful completion of the above examinations, the student will receive ten (10) semester credit hours for the following nursing courses: NURS 3300, NURS 3417, NURS 3327. After satisfactory completion of the first 11 credit hours of the program, the student is awarded

seven (7) semester credit hours in nursing courses congruent with the Texas Articulation Model. A total of 17 semester credit hours are given for articulation credit (advanced placement and credit by examination).

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 Medical 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

Complete Core Curriculum Listing at <https://catalog.pvamu.edu/universitycorecurriculum/>

Core Curriculum 42 Credit Hours

Communication (Selective Two)		6
Mathematics		3
MATH 1314	College Algebra	
Life and Physical Sciences		6
BIOL 2401	Anatomy and Physiology I	
BIOL 2402	Anatomy and Physiology II	
Language, Philosophy, and Culture (Select One)		3
Creative Arts (Select One)		3
American History (Select Two)		6
Government/Political Science		6
POSC 2305	American Government	
POSC 2306	Texas Government	
Social and Behavioral Sciences (Select One)		3
Component Area Option One (Select One)		3
Component Area Option Two (Select One)		3
Support Area Requirements (16 SCH)		
HDFM 2355	Human Development: Life Span	3
HUSC 1322	Ecology of Human Nutrition and Food	3
PSYC 2317	Statistical Methods in Psychology	3
CHEM 1306	Introductory Chemistry I	3
CHEM 1106	General Chemistry Lab	1
BIOL 1307	General Microbiology	3
Advanced Placement Articulation		10
Credit Examination		7
Major Requirements (49 SCH)		
NURS 3500	Transition to Professional Nursing	5
NURS 3301	Individual Health Assessment	3
NURS 3302	Basic Pathophysiology	3
NURS 3518	Family Health Nursing	5
NURS 3428	Family Health Nursing Practicum	4
NURS 4301	Introduction to the Research Process	3
NURS 4316	Mental Health Nursing	3
NURS 4226	Mental Health Nursing Practicum	2

NURS 4318	Adult Health Nursing II	3
NURS 4228	Adult Health Nursing II Practicum	2
NURS 4317	Community Health Nursing	3
NURS 4227	Community Health Nursing Practicum	2
NURS 4319	Nursing Leadership and Management	3
NURS 4229	Nursing Leadership and Management Practicum	2
NURS 4340	Nursing Process Seminar	3
Nursing Electives		3
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 Accreditation Commission for Education in Nursing (ACEN) 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 six 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

Upon admission to the RN-BSN program, students may qualify for 36 semester credit hours of advanced placement and articulation congruent with the Texas Articulation

Model. NURS 3416, NURS 3326, NURS 3300, NURS 3417, NURS 3327, NURS 3518, NURS 3428, NURS 4316, NURS 4226, NURS 4318, NURS 4228 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

Complete Core Curriculum Listing at <https://catalog.pvamu.edu/universitycorecurriculum/>

Core Curriculum 42 Credit Hours

Communication (Select Two)		6
Mathematics		3
MATH 1314	College Algebra	
Life and Physical Sciences		6
BIOL 2401	Anatomy and Physiology I	

BIOL 2402	Anatomy and Physiology II	3
Language, Philosophy, and Culture (Select One)		3
Creative Arts (Select One)		3
American History (Select Two)		6
Government/Political Science		6
POSC 2305	American Government	
POSC 2306	Texas Government	
Social and Behavioral Sciences (Select One)		3
Component Area Option One (Select One)		3
Component Area Option Two (Select One)		3
Support Area Requirements (24 SCH)		
HDFM 2355	Human Development: Life Span	3
HUSC 1322	Ecology of Human Nutrition and Food	3
PSYC 2317	Statistical Methods in Psychology	3
CHEM 1306	Introductory Chemistry I	3
CHEM 1106	General Chemistry Lab	1
BIOL 1307	General Microbiology	3
BIOL 2401	Anatomy and Physiology I	1
BIOL 2402	Anatomy and Physiology II	1
Advanced Placement Articulation		36
Major Requirements (24 SCH)		
NURS 4300	Concepts of Professional Nursing Practice	3
NURS 3301	Individual Health Assessment	3
NURS 3302	Basic Pathophysiology	3
NURS 4301	Introduction to the Research Process	3
NURS 4203	Trends and Issues in Professional Nursing	2
NURS 4317	Community Health Nursing	3
NURS 4319	Nursing Leadership and Management	3
NURS 4227	Community Health Nursing Practicum	2
NURS 4229	Nursing Leadership and Management Practicum	2
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 and include NURS 5300, NURS 5304, NURS 5302, NURS 5324, CNSL 5309.

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, the Center for Instructional Innovation and Technology Services (CIITS) 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 accessible through PantherTracks.

Approved Distance Education Programs:

- BSN in Nursing with a RN-BSN concentration Program
- MSN-Family Nurse Practitioner

Bachelor of Science in Nursing Degree Sequence

BSN Nursing-Generic

Core: <https://catalog.pvamu.edu/universitycorecurriculum/>**Freshman**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Communication Core		3 Communication Core	3
Mathematics Core		3 Social and Behavioral Sciences Core	3
MATH 1314		Life and Physical Sciences Core	4
Life and Physical Sciences Core		4 BIOL 2402	
BIOL 2401		Component Area Option Two Core	3
Component Area Option One Core		3 American History Core	3
American History Core		3	
Total		16 Total	16

Total Hours: 32**Sophomore**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Government/Political Science Core		3 Government/Political Science Core	3
HDFM 2355		3 Language, Philosophy & Culture Core	3
CHEM 1306		3 HUSC 1322	3
CHEM 1106		1 PSYC 2317	3
Creative Arts Core		3 BIOL 1307	3
Total		13 Total	15

Total Hours: 28**Junior**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
NURS 3416		4 NURS 3300	3
NURS 3326		3 NURS 3417	4
NURS 3301		3 NURS 3327	3
NURS 3302		3 Nursing Elective	3
Total		13 Total	13

Total Hours: 26**Senior**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
NURS 3518		5 NURS 4316	3
NURS 3428		4 NURS 4226	2
NURS 4301		3 NURS 4318	3
		NURS 4228	2
		Nursing Elective	3
Total		12 Total	13

Total Hours: 25**Fifth Year**

Fall - Semester 1	Hours
NURS 4317	3
NURS 4227	2

NURS 4319	3
NURS 4229	2
NURS 4340	3
Total	13

Total Hours: 13

Total Semester Credit Hours: 124

BSN Nursing-LVN to BSN

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
NURS 3302		3 NURS 3518	5
NURS 3301		3 NURS 3428	4
NURS 3500		5 NURS 4301	3
Total	11 Total		12

Total Hours: 23

Second Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
NURS 4316		3 NURS 4317	3
NURS 4226		2 NURS 4227	2
NURS 4318		3 NURS 4319	3
NURS 4228		2 NURS 4229	2
Nursing Elective		3 NURS 4340	3
Total	13 Total		13

Total Hours: 26

Total Semester Credit Hours: 49

BSN Nursing-RN to BSN

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
NURS 4300		3 NURS 4317		3 NURS 4319	3
NURS 3301		3 NURS 4227		2 NURS 4229	2
NURS 3302		3 NURS 4301		3 NURS 4203	2
		Nursing Elective		3 Nursing Elective	3
Total	9 Total		11 Total		10

Total Hours: 30

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

BSN Nursing

Degree Skills

1. Health/Wellness
2. Physiology
3. Interpersonal Relationships

Co-curricular and Extracurricular Skills

1. Problem solving
2. Good judgment
3. Customer Service

College of Nursing, Graduate

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

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 six (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. One practicum course is required for 120 hours. 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.

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. Please see the Certificates section in the catalog for additional information.

Admission Requirements

The general policies relating to admission of graduate students to the College of Nursing are consistent with those of Graduate Studies. 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), and hold a current unencumbered license as a registered nurse in the State of Texas or have an application for licensure in progress.

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 Graduate Studies 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 three (3) letters of recommendation from professional nurses, one of which must be from a former nursing faculty.
5. Present a current resume or curriculum vita.
6. Verification of a negative criminal background check and drug screening tests.
7. Complete an individual interview with graduate faculty/committee.
8. Complete a satisfactory writing sample.

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 the following admission categories.

Regular Status

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; 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.

Conditional Status

Students may be considered for admission as conditional status and must meet the terms of the condition within the first 12 semester credit hours after admission. Grounds for conditional admission include a GPA of less than 2.75 on a 4.0 scale in the last 60 hours of course work and/or an earned Bachelor of Science Degree from a nursing school that is not accredited by ACEN or CCNE.

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.

Non-Degree Seeking Status

A student who has a bachelor's degree (minimum cumulative GPA of 2.75) and who wishes to take graduate courses 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 Director of Nursing Graduate Studies and approved by the Deans of the College of Nursing and Graduate Studies.

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 studies 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 Studies 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 Director 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 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 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

A|90 - 100| B|81 - 89| C|75 - 80| D|65 - 74| F|Below 65| I|Incomplete| IP|Incomplete Passing| S|Satisfactory (For Thesis Option Only)| W|Withdrew Officially|

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 the Program

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 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.
2. Submit the application, to the Director of Graduate Programs, Dean of the College of Nursing, and Graduate Studies 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 Graduate Studies 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 Graduate Studies through the accepting Graduate Advisor, Department head, and Academic Dean. The application will be subject to the approval of Graduate Studies.

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.

- 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 *Withdrawals*.

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 Graduate Studies.
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 Academic Catalog.
4. 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. Additional information is found on the Graduation Requirements (<https://catalog.pvamu.edu/generalacademicinformation/graduate/#graduationrequirementsgtext>) page in the Academic Catalog.

Withdrawal Policy

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 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 Graduate Studies 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 13 months or more.
4. A graduate student who voluntarily withdraws from the university.

Note:

- In the four cases mentioned above students/applicants/degree candidates/non-degree students must complete and submit a new application, fee of \$50.00, and three (3) letters of recommendation.
- Applicants who have been admitted to the program but did not enroll can defer their admission to the following academic semester without paying an additional fee. Applicants must reapply beyond the one semester allowable deferment.
- 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 Studies. Continuing students who have sat out the program for less than one (1) year 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 regular graduate degree status (an unconditional acceptance). These are students who received conditional acceptance 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 and a GPA of 3.0 or better must be maintained. 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

Students are placed on probation when they have one or more of the following:

- Have a cumulative GPA of less than a 3.0 in a given term or semester.
- Receive a grade of "C" or below in any course.

Students are allowed one opportunity to retake only one course in which a grade of "C" is earned. 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 of the College of Nursing, should be referred to the Office of Graduate Studies, 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 College of Nursing Graduate Student Handbook.

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 GPA of 3.00 on a 4.00 scale during undergraduate studies, and a minimum GPA 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,
- 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, and drug screening
- 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), or a postmaster's degree in Nursing with a specialty in Nursing Administration,
- A scholarly writing sample (e.g., thesis, publication, professional paper, or proposal), and
- 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 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 (6) semester credit hours with a minimum grade of "B" and will be subject to review by the College of Nursing admission panel.

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 Tuition and Fees (<https://catalog.pvamu.edu/fmsv/>) section of the Academic Catalog.

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 Financial Aid (<https://catalog.pvamu.edu/faid/>) section of the Academic Catalog.

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 three 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 Family Nurse Practitioner students will complete a minimum of 1,000 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

Grade	Meaning	Score Range	Grade Values
A		95-100	
B		85-94	
C		75-84	
D		65-74	
F		below 65	

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.

Nurse Administration, MSN

Master of Science in Nursing, Nurse Administration Degree Requirements

Core Courses

NURS 5300	Transcultural Family Health Care in Rural and Urban Settings	3
NURS 5301	Theoretical Foundations of Nursing	3
NURS 5314	Clinical Research	3
NURS 5371	Health Policy	3
Select one of the following		3
CNSL 5309	Educational Statistics	
JJUS 5396	Applied Statistical Methods and Computing	

Nurse Administration Courses

NURS 5340	ADM I-Organizational Theory	3
NURS 5341	ADM II-Healthcare Management	3
NURS 5342	ADM III-Healthcare Economics and Financial Management	3
NURS 5344	ADM IV - Nurse Administration Practicum	3

Graduate Business or Health Informatics Electives

Select three of the following:

Examples of Business Courses:

ECON 5300	Concepts of Economic Analysis	
MRKT 5330	Marketing Management	
MGMT 5310	Organizational Behavior	
MGMT 5334	Human Resource Management	
MGMT 5335	Entrepreneurship and Innovation	

Examples of Health Informatics:

NURS 5345	Health Informatics I	
Select one of the following options:		6

Thesis Option

NURS 5380	Thesis Proposal Writing	
NURS 5390	Thesis	

Non-Thesis Option

NURS 5377	Capstone Proposal Writing and Project Development	
NURS 5378	Research Capstone Project	

Total Hours

42

Master of Science in Nursing, Nurse Administration Degree Sequence

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
NURS 5301		3 CNSL 5309 or JJUS 5396		3 NURS 5341	3
NURS 5300		3 NURS 5314		3 NURS 5371	3

Health Informatics Elective	3 NURS 5340	3	
Total	9 Total	9 Total	6

Total Hours: 24**Second Year**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
NURS 5342		3 NURS 5344	3
Business Course Elective		3 Thesis or Capstone	3
Thesis or Capstone		3 Business Course Elective	3
Total		9 Total	9

Total Hours: 18

Name	Unit
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Total Semester Credit Hours: 42

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

MSN Nurse Administration

Degree Skills

1. Relationship building
2. Conflict management
3. Cultural sensitivity and inclusivity

Concentration Skills

1. Budget planning and monitoring
2. Strategic planning, including marketing plans
3. Conflict management

Co-curricular and Extracurricular Skills

1. Business plan development
2. Quality and performance improvement
3. Translation of research to bedside

Family Nurse Practitioner, MSN

Master of Science in Nursing, Family Nurse Practitioner Degree Requirements

Core Courses

NURS 5300	Transcultural Family Health Care in Rural and Urban Settings	3
NURS 5301	Theoretical Foundations of Nursing	3
NURS 5314	Clinical Research	3
NURS 5371	Health Policy	3
CNSL 5309	Educational Statistics	3

Advanced Practice Core Courses¹

NURS 5204	Role Theory and Ethics in Advanced Practice Nursing	2
NURS 5316	Advanced Pathophysiology for Advance Practice Nursing	3
NURS 5317	Advanced Pharmacology for Advance Practice Nursing	3
NURS 5326	Advanced Health Assessment and Diagnostic Reasoning for Advanced Practice Nursing	3

Nurse Practitioner Specialty Core Courses

NURS 5621	Primary Health Care for the Childbearing/Childrearing Family with Practicum	6
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NURS 5524	Primary Health Care for the Adult and Elderly with Practicum	5
NURS 5725	Management of Complex Health Problems	7
NURS 5376	Financial Management in Advanced Nursing Practice	3
Select one of the following options:		6
Thesis Option		
NURS 5380	Thesis Proposal Writing	
NURS 5390	Thesis	
Non-Thesis Option		
NURS 5377	Capstone Proposal Writing and Project Development	
NURS 5378	Research Capstone Project	

Total Hours **53**

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).

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, the Center for Instructional Innovation and Technology Services (CIITS) 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 accessible through PantherTracks.

Approved Distance Education Programs:

- BSN in Nursing with a RN-BSN concentration Program
- MSN-Family Nurse Practitioner

Distance Site:

- Northwest Houston Center, Houston, TX

Master of Science in Nursing, Family Nurse Practitioner Degree Sequence

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
NURS 5301		3 NURS 5316		3 NURS 5524	5
NURS 5300		3 NURS 5314		3 NURS 5371	3
NURS 5317		3 NURS 5326		3 CNSL 5309	3
		NURS 5204		2	
Total		9 Total		11 Total	11

Total Hours: 31

Second Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
NURS 5621		6 NURS 5725	7
NURS 5376		3 Thesis or Capstone	3
Thesis or Capstone		3	
Total		12 Total	10

Total Hours: 22

Name	Unit
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Total Semester Credit Hours: 53

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

MSN Family Nurse Practitioner**Degree Skills**

1. Critical thinking using evidence-based research
2. Strong communication skills
3. Analytic and leadership skills in primary care

Concentration Skills

1. Family Nurse Practitioner Certification
2. Advanced Practice Nurse recognition by the Board of Nursing

Co-curricular and Extracurricular Skills

1. Suturing and other basic procedures in primary care
2. Prepare business plans
3. Attend Legislative session and NP/MD conferences

Nurse Education, MSN**Master of Science in Nursing, Nurse Education Degree Program Requirements****Core Courses**

NURS 5300	Transcultural Family Health Care in Rural and Urban Settings	3
NURS 5301	Theoretical Foundations of Nursing	3
NURS 5314	Clinical Research	3
NURS 5371	Health Policy	3
Select one of the following:		3
CNSL 5309	Educational Statistics	
JJUS 5396	Applied Statistical Methods and Computing	

Clinical Core Courses

NURS 5302	Advanced Pharmacology	3
NURS 5304	Advanced Pathophysiology	3
NURS 5324	Advanced Health Assessment	3

Nurse Education Courses

NURS 5330	Program and Curriculum Design	3
NURS 5331	Instructional Methods and Strategies	3
NURS 5332	Evaluation in Nursing Education	3
NURS 5333	Nursing Education Role Practicum I: Classroom Instruction	3
NURS 5335	Nursing Education Role Practicum II: Clinical Instruction	3

Select one of the following options:

6

Thesis Option	
NURS 5380	Thesis Proposal Writing
NURS 5390	Thesis
Non-Thesis Option	
NURS 5377	Capstone Proposal Writing and Project Development
NURS 5378	Research Capstone Project

Total Hours**45**

Master of Science in Nursing, Nurse Education Degree Sequence

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
NURS 5301		3 NURS 5304		3 CNSL 5309 or JJUS 5396	3
NURS 5300		3 NURS 5314		3 NURS 5371	3
NURS 5302		3 NURS 5324		3	
Total		9 Total		9 Total	6

Total Hours: 24

Second Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
NURS 5330		3 NURS 5333	3
NURS 5331		3 NURS 5335	3
Thesis or Capstone		3 NURS 5332	3
		Thesis or Capstone	3
Total		9 Total	12

Total Hours: 21

Name	Unit
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Total Semester Credit Hours: 45

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

MSN Nurse Education

Degree Skills

1. Presentation skills
2. Enhanced communication skills
3. Teaching

Concentration Skills

1. Ability to sit for Nurse Education certification
2. Proficient at the use of presentation platforms
3. Technology skills

Co-curricular and Extracurricular Skills

1. Curriculum development
2. Program evaluation
3. Instructional strategies development

Nursing Practice, DNP

Doctorate of Nursing Practice Degree Program Requirements

Core Courses (27 SCH)

NURS 7300	Scientific Writing	3
NURS 7301	Nursing Science and Complex Systems	3
NURS 7302	Leadership in Complex Health Systems	3
NURS 7304	Health Informatics: Systems Management of Health Data	3
NURS 7305	Evidence-Based Practice (Qualitative & Quantitative Methods)	3
NURS 7306	Health Care Policy for Advocacy in Health Care	3
NURS 7314	Analytical Approaches to Outcomes Management: Individuals and Populations	3
NURS 7324	Translating Evidence into Advanced Nursing Practice	3
NURS 7342	Economics in Complex Healthcare	3

Project (6 SCH)

NURS 7255	DNP Project I: Project Planning	2
NURS 7265	DNP Project II: Project Implementation	2
NURS 7275	DNP Project III: Project Dissemination and Evaluation	2

Practicum (3 SCH)

NURS 7338	Practice Residency I	3
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Electives (3 SCH)

3

Total Hours

39

Students who enter the Doctor of Nursing Practice Program as a Nurse Administrator will be required to complete 39 hours after the Master's degree and 1,000 clinical hours of practicum (includes MSN practicum hours).

Core Courses (30 SCH)

NURS 7300	Scientific Writing	3
NURS 7301	Nursing Science and Complex Systems	3
NURS 7302	Leadership in Complex Health Systems	3
NURS 7304	Health Informatics: Systems Management of Health Data	3
NURS 7305	Evidence-Based Practice (Qualitative & Quantitative Methods)	3
NURS 7306	Health Care Policy for Advocacy in Health Care	3
NURS 7314	Analytical Approaches to Outcomes Management: Individuals and Populations	3
NURS 7324	Translating Evidence into Advanced Nursing Practice	3
NURS 7342	Economics in Complex Healthcare	3
NURS 7343	Population Health	3

Project (6 SCH)

NURS 7255	DNP Project I: Project Planning	2
NURS 7265	DNP Project II: Project Implementation	2
NURS 7275	DNP Project III: Project Dissemination and Evaluation	2

Practicum (3 SCH)

NURS 7338	Practice Residency I	3
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Total Hours

39

DNP Nursing Practice Part-Time

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
NURS 7301		3 NURS 7302		3 NURS 7304	3
NURS 7305		3 NURS 7343 ²		3 NURS 7306	3
Total		6 Total		6 Total	6

Total Hours: 18

Second Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
NURS 7300		3 NURS 7338		3 NURS 7255	2
NURS 7314		3 NURS 7342		3	
Total		6 Total		6 Total	2

Total Hours: 14

Third Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
NURS 7265		2 NURS 7275	2
NURS 7324		3	
Total		5 Total	2

Total Hours: 7

Name	Unit
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Total Semester Credit Hours: 39

² Family Nurse Practitioner (FNP) majors must take NURS 7315 Informatics for Using Telehealth in Nursing Practice.

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

Doctor of Nursing Practice**Degree Skills**

1. Health care leadership
2. Project manager skills
3. Data analysis skills

Honors Program

The Honors Program continues to build on its established legacy and profound history of academic excellence, creating a scholarly atmosphere for current and future students. The Honors Program continues to build on its established legacy and profound history of academic excellence, creating a scholarly atmosphere for current and future students.

Learn more about the University's Honor's Program: <https://www.pvamu.edu/honorsprogram/>

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 graduate program(s) is required to:

1. Submit a formal application for admission to the Office of Graduate Studies. See Graduate Studies Admission (<https://catalog.pvamu.edu/admissionsinformationandrequirements/applytograduateschool/>) for deadline dates and requirements. Students should also consult specific departments for degree requirements.
2. Meet all requirements outlined by Graduate Studies for a degree status.
3. 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 from the Office of Graduate Studies. 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 seven 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 concentrate on courses in the 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:

Program	Degree Offered
African American Studies	BA
Biology	BS
Chemistry	BS, MS
Clinical Adolescent Psychology	MS, PhD
Communications	BA
English	BA
History	BA
Juvenile Forensic Psychology	MSJFP**
Mathematics	BS
Music	BA
Physics	BS
Political Science	BA
Psychology	BS
Social Work	BSW, MSW
Sociology	BA, MA
Army ROTC	
Naval ROTC	

**This program is currently on moratorium and not accepting new applicants at this time.

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 a minimum 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.

Certificates in the Marvin D. and June Samuel Brailsford College of Arts and Sciences

Undergraduate Certificate in Integrated Humanities

The Certificate in Integrated Humanities is part of a Texas A&M University System-wide initiative funded by a grant from the Teagle Foundation.

The certificate is designed to enhance engagement with the humanities across the system campuses, particularly among students in STEM and pre-professional disciplines. Employers in STEM and professional fields are increasingly interested in job candidates who demonstrate the highly adaptable skills associated with the humanities: critical thinking and creative problem-solving, ethical reasoning and cultural awareness, written and oral communication, and empathy and interpersonal relationship-building. The Certificate in Integrated Humanities is designed to cultivate these skills in ways that connect directly to students' career pathways. Students can complete an application for the certificate in the Brailsford College of Arts and Sciences Dean's Office. Course requirements for the certificate are listed below.

Students must consult with their major and/or minor academic advisor to ensure the courses for the certificate also meet the requirements of the declared degree or minor program. If the courses do not apply to the declared degree plan, the courses for the certificate will not qualify for federal aid under the Course Program of Study (CPoS) requirements.

Required Course		3
HUMA 1301	Introduction to Humanities	
Integrated Humanities Courses (Choose two) ¹		6
HIST 2321	World Civilizations I	
HIST 2322	World Civilizations II	
PHIL 2306	Ethics	
Humanities Elective (Choose one 3000 - 4000 level) ²		3
ePortfolio ³		0
Total Hours		12

¹ Substitutions allowed with approval by Academic Dean

² Electives must be at the 3000 or 4000-level from any Humanities discipline: AFAM, ARAB, ARTS, CHIN, COMM, DRAM, ENGL, HIST, HUMA, MUSC, PHIL, SPAN

³ The ePortfolio consists of Integrated Humanities Projects from two courses plus a Capstone Project

Honor Societies

Society	Department
Alpha Delta Mu	Social Work
Alpha Mu Gamma	Foreign Languages
Alpha Psi Omega	Drama
Beta Beta Beta	Biology
Beta Kappa Chi	Sciences and Mathematics
Lambda Pi Eta	Communications
Mu Alpha Sigma	Music
Phi Alpha Theta	History
Pi Mu Epsilon	Mathematics
Pi Sigma Alpha	Political Science
Psi Chi	Psychology
Sigma Delta Pi	Spanish
Sigma Pi Sigma	Physics
Sigma Tau Delta	English

Department of 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:

ARMY 1117	Leadership Laboratory I	1
ARMY 1118	Leadership Laboratory II	1
ARMY 2127	Leadership Laboratory III	1
ARMY 2128	Leadership Laboratory IV	1
ARMY 3137	Leadership Laboratory V	1
ARMY 3138	Leadership Laboratory VI	1
ARMY 4147	Leadership Laboratory VII	1
ARMY 4148	Leadership Laboratory VIII	1

Advanced Course Admission Requirements

Prerequisites: Students must complete the basic course (ARMY 1111, ARMY 1112, ARMY 1117-ARMY 1118, ARMY 2320 (May substitute HIST 1301 or HIST 1302) and ARMY 2127-ARMY 2128) or receive constructive credit prior to enrolling in the advanced course (ARMY 3331, ARMY 3137, ARMY 3332, ARMY 3138, ARMY 4341, ARMY 4342, ARMY 4147, and ARMY 4148). Students with prior military service or four years of JROTC experience may be eligible for constructive credits and advanced placement.

Course	Prerequisites
ARMY 3331	ARMY 1111, ARMY 1112, ARMY 1117-ARMY 1118, ARMY 2221, ARMY 2222, and ARMY 2127-ARMY 2128, completion of the Leadership Training Course (LTC); prior service or have completed four years of junior ROTC in high school.
ARMY 4341	ARMY 3331, ARMY 3137, ARMY 3332, ARMY 3138

Commissioning Program Requirements

A cadet must satisfy the following requirements in order to be commissioned:

Complete or receive constructive credit for 16 semester credit 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.	
ARMY 2320	Military History (May substitute HIST 1301 or HIST 1302)
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
ARMY 2320	Military History (May substitute HIST 1301 or HIST 1302)
	3

Option 3. Prior Service or Junior ROTC Program:

Military Science Courses	16
Satisfactorily complete Cadet Leadership Course	
Demonstrate proficiency in military history.	
ARMY 2320	Military History (May substitute HIST 1301 or HIST 1302)
	3

Minor Field Requirements

Receive a minimum grade of "C" in all Military Science Courses.

ARMY 3331	Principles and Techniques of Leadership and Management	3
ARMY 3332	Leadership Skills and Small Unit Tactics	3
ARMY 3137	Leadership Laboratory V	1
ARMY 3138	Leadership Laboratory VI	1
ARMY 4341	Leadership and Management I	3
ARMY 4342	Leadership and Management II	3
ARMY 4147	Leadership Laboratory VII	1

ARMY 4148	Leadership Laboratory VIII	1
Total Hours		16

Military Science Curriculum

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
ARMY 1111		1 ARMY 1112	1
ARMY 1117		1 ARMY 1118	1
Total		2 Total	2

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours
ARMY 2221		2 ARMY 2222	2
ARMY 2127		1 ARMY 2128	1
ARMY 2320		3 Summer Session	
Total		6 Total	3

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
ARMY 3331		3 ARMY 3332	3
ARMY 3137		1 ARMY 3138	1
Total		4 Total	4

Senior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
ARMY 4341		3 ARMY 4342	3
ARMY 4147		1 ARMY 4148	1
Total		4 Total	4

Total Hours: 29

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 1112 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 1117 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 1118 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 2127 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 2128 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 2221 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 1112 or 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 or ARMY 2221.

ARMY 2320 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 3137 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 3138 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 3331 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 2221 or ARMY 2212) and ARMY 2222.

ARMY 3332 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 3331 or ARMY 3313.

ARMY 3399 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 2221 or ARMY 2212 and ARMY 2222.

ARMY 4141 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 4341 or ARMY 4413) and (ARMY 4342 or ARMY 4423).

ARMY 4142 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 4341 or ARMY 4413 and (ARMY 4342 or ARMY 4423).

ARMY 4147 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.

ARMY 4148 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.

ARMY 4341 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 4342 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.

ARMY 4399 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 3331 or ARMY 3313 and (ARMY 3332 or ARMY 3323).

Department of Biology

Purpose and Goals

The curriculum of the Department of Biology is designed to provide students with a wealth of biological knowledge. The department prepares students for careers as scientists 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 studies. The department is committed to integrating instruction and research to develop our students' critical thinking skills and produce life-long learners.

Academic Standards

Students must earn a minimum grade of "C" in all classes taken in their major disciplines, a minimum grade of "C" in all classes taken in their minor disciplines and physics courses. (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.

Optional Minor

A minor is not required for the BS Biology. However, Biology majors are required to take 20 credits of chemistry support courses for the biology degree.

By completing CHEM 4303 and CHEM 4204, Biochemistry lecture and lab, a Biology major is eligible to complete the 24 SCH catalog requirement for a minor in chemistry. It is highly recommended that biology majors interested in graduate school or professional school select the chemistry minor.

Requirements for a Minor in Biology

BIOL 1501	General Biology	5
BIOL 1502	General Biology	5
BIOL 2416	Genetics	4
BIOL 3401	Human Physiology and Anatomy	4
BIOL 3402	Human Physiology and Anatomy	4
BIOL 3403	General Microbiology	4
Total Hours		26

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 the biology department and medical schools; to establish a better relationship 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; and 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 preceptorships to provide opportunities for visits to zoos and the College of Veterinary Medicine at Texas A&M University; and 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; and 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 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. Students are introduced to professionals in allied health; visit the campuses and hospitals of the various programs; and 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.

Courses

BIOL 1102 Biology Seminar: 1 semester hour.

Discussion and presentations of current biological topics by students, faculty, and guest lecturers.

BIOL 1103 Biology Seminar: 1 semester hour.

Discussion and presentations of current biological topics by students, faculty, and guest lecturers.

BIOL 1108 Biology for Non-Science Major I Lab: 1 semester hour.

Introductory laboratory course for non-biology majors. Emphasis on basic biological principles and their application to human life.

BIOL 1307 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 1308 Biology for Non-Science Major 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 1309 Biology for Non-Science Majors 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 1411 Botany: 4 semester hours.

Morphology and physiology of flowering plants. Structure, method of reproduction, and biotic relationships of type representatives of lower plants.

BIOL 1501 General Biology: 5 semester hours.

Basis of life, cell theory, structure and energy transformation, reproduction, and genetic variability. Origins of diversity of organisms.

BIOL 1502 General Biology: 5 semester hours.

Structure and function of living organism systems. Ecological relationships, natural selection, evolution, and human ecology.

BIOL 2306 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 2401 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 2402 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 2416 Genetics: 4 semester hours.

Analysis of the structure, function, and transmission of genetic materials.

Prerequisites: (BIOL 1501 or BIOL 1015) and (BIOL 1502 or BIOL 1025) and (BIOL 1411 or BIOL 1034).

BIOL 3307 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 1502 or BIOL 1025) and (CHEM 2304 or CHEM 2043).

BIOL 3308 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 1502 or BIOL 1025 and (CHEM 2304 or CHEM 2043).

BIOL 3401 Human Physiology and Anatomy: 4 semester hours.

For biology and physical education majors. Human structure, physiology, organ systems, and related principles.

Prerequisites: (BIOL 1501 or BIOL 1015) and (BIOL 1502 or BIOL 1025).

BIOL 3402 Human Physiology and Anatomy: 4 semester hours.

For biology and physical education majors. Human structure, physiology, organ systems, and related principles.

Prerequisites: BIOL 1501 or BIOL 1015 and (BIOL 1502 or BIOL 1025).

BIOL 3403 General Microbiology: 4 semester hours.

Morphology, physiology, classification, and cultivation of the microorganism relevant to agriculture, pre-medicine, and industry.

Prerequisites: (BIOL 1501 or BIOL 1015) and (CHEM 1303 or CHEM 1033).

BIOL 3404 Immunology: 4 semester hours.

Fundamental aspects of immunology, antigenic systems, hypersensitivity, and serology.

Prerequisites: BIOL 1501 or BIOL 1015 and (BIOL 1502 or BIOL 1025).

BIOL 3405 Gross Anatomy: 4 semester hours.

Introduce the basic principles and facts relating to the gross anatomy of the human body.

Prerequisites: (BIOL 1501 or BIOL 1015) and (BIOL 1502 or BIOL 1025).

BIOL 3406 Animal Histology: 4 semester hours.

Microscopic study of tissues and organs of vertebrates. Relation of structure to function.

Prerequisites: BIOL 1501 or BIOL 1015 and (BIOL 1502 or BIOL 1025).

BIOL 3412 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 1502 or BIOL 1025 and (CHEM 2304 or CHEM 2043).

BIOL 3413 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 1501 or BIOL 1015) and (BIOL 1502 or BIOL 1025) and (BIOL 2416 or BIOL 2054) and (BIOL 3307 or BIOL 3073).

BIOL 4105 Research: 1 semester hour.

Library and laboratory work in specific biological problems.

BIOL 4106 Research: 1 semester hour.

Library and laboratory work in specific biological problems.

BIOL 4201 Medical 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 4301 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 1501 or BIOL 1015) and (BIOL 1502 or BIOL 1025) and (BIOL 2416 or BIOL 2054) and (CHEM 2303 or CHEM 2033) and (CHEM 2304 or CHEM 2043).

BIOL 4401 Vertebrate Embryology: 4 semester hours.

Structure, principles, and progress in vertebrate development. Chickens and pigs as principle laboratory materials.

Prerequisites: BIOL 1501 or BIOL 1015 and (BIOL 1502 or BIOL 1025).

BIOL 4402 Comparative Anatomy: 4 semester hours.

Anatomy of organs and organ systems, their function and evolution in major vertebrate types.

Prerequisites: BIOL 1501 or BIOL 1015 and (BIOL 1502 or BIOL 1025).

BIOL 4403 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 5301 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 5306 Micro Activ Toxic: 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 5312 Cell 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 2303 or CHEM 2033 and (CHEM 2304 or CHEM 2043).

BIOL 5399 Independent Study: 1-3 semester hour.

Reading, research and/or field work on selected topics in Biology. Prerequisite: Consent of advisor. Students may register for this course each semester. Only six credit hours may be earned.

BIOL 5402 Microscopic Anatomy: 4 semester hours.

Microscopic study of tissues and organ of vertebrates; relation of structure to function.

Undergraduate

Purpose and Goals

The Biology Department of Prairie View A&M University offers a Bachelor of Science in Biology. The department strives to prepare its students for careers in the health professions. Many of our students, upon matriculation, enter medical schools, veterinary schools, dental schools, optometry schools, or pharmacy schools. The department also prepares its students to study medical technology, physical therapy, or occupational therapy. The department also allows students to have careers as physician assistants, dental assistants and health professional assistants. Those biology students not interested in continuing on to health professional school enter graduate studies, or become health educators.

Biology, BS

Bachelor of Science in Biology Degree Program Requirements

Complete Core Curriculum Listing at <https://catalog.pvamu.edu/universitycorecurriculum/>

Core Curriculum 42 Credit Hours

Communication (Select Two)		6
Mathematics		3
MATH 2413	Calculus with Analytic Geometry I	
Life and Physical Sciences (Select Two)		6
Language, Philosophy, and Culture (Select One)		3
Creative Arts (Select One)		3
American History (Select Two)		6
Government/Political Science		6
POSC 2305	American Government	
POSC 2306	Texas Government	
Social and Behavioral Sciences (Select One)		3
Component Area Option One (Select One)		3
Component Area Option Two (Select One)		3
Foreign Language Requirements (One language)		6
Major Requirements ^{2, 3}		
BIOL 1501	General Biology	5
BIOL 1102	Biology Seminar	1
BIOL 1502	General Biology	5

BIOL 1103	Biology Seminar	1
BIOL 1411	Botany	4
BIOL 2416	Genetics	4
BIOL 3401	Human Physiology and Anatomy	4
BIOL 3402	Human Physiology and Anatomy	4
BIOL 3403	General Microbiology	4
BIOL 3307	Molecular Biology I	3

Major Electives

Select 15 hours from the courses below: 15

BIOL 3404	Immunology	
BIOL 3405	Gross Anatomy	
BIOL 3406	Animal Histology	
BIOL 3308	Molecular Biology II	
BIOL 3412	Cell Biology	
BIOL 3413	Synthetic Biology	
BIOL 4201	Medical Terminology	
BIOL 4301	Topics in Genomics	
BIOL 4401	Vertebrate Embryology	
BIOL 4402	Comparative Anatomy	
BIOL 4403	Practicum in Biology	
BIOL 4105	Research	
BIOL 4106	Research	

Support Requirements

CHEM 1203	General Chemistry Lab	2
CHEM 1303	General Inorganic Chemistry I	3
CHEM 1204	General Inorganic Chemistry Laboratory II	2
CHEM 1304	General Inorganic Chemistry II	3
CHEM 2203	Organic Chemistry Lab I	2
CHEM 2303	General Organic Chemistry I	3
CHEM 2204	Organic Chemistry Lab II	2
CHEM 2304	General Organic Chemistry II	3
PHYS 1101	General Physics Lab I	1
or PHYS 2125	University Physics Lab I	
PHYS 1102	General Physics Lab II	1
or PHYS 2126	University Physics Lab II	

MATH 2413 (1 hour counts in the support area and 3 hours meets the core curriculum Math component requirement) 1

Biology majors are required four (4) hour credit physical activity courses (DANC, KINE, or HUPF). 4

Total Hours**125**

¹ Biology majors are required to take MATH 2413 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. A total of fifty (50) Biology SCH are required.

³ A minor is not required for the BS Biology. However, by completing CHEM 4303 and CHEM 4204, Biochemistry lecture and lab, a Biology major is eligible 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 College Admission Test (MCAT) or Dental Admission 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

MCAT Registration	DAT Registration
American College	Testing Program Div. of Educational Measurements
P.O. Box #414	Council on Dental Education
Iowa City, IA 52240	American Dental Association
(319) 337-1305	211 East Chicago Avenue
	Chicago, IL 60611
	(312) 440-2689

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 the 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, and the University of Texas -Houston Dental school 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. 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.

Optional Requirements in Addition to Biology Degree Requirements

A minor is not required for the BS Biology. However, by completing CHEM 4303 and CHEM 4204, Biochemistry lecture and lab, a Biology major is eligible to complete the catalog requirements for a minor in chemistry.

Chemistry

CHEM 4303	Biochemistry	3
CHEM 4204	Biochemistry Laboratory	2
Total Hours		5

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 in the biology department.

Bachelor of Science in Biology Degree Sequence

Core: <https://catalog.pvamu.edu/universitycorecurriculum/>

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
BIOL 1102		1 BIOL 1103	1
BIOL 1501		5 BIOL 1502	5
Communication Core		3 Communication Core	3
CHEM 1303		3 CHEM 1304	3
CHEM 1203		2 CHEM 1204	2
Component Area Option One Core		3 HKIN, KINE or DANC Physical Activity Course	1
Total		17 Total	15

Total Hours: 32

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours
BIOL 1411		4 BIOL 2416	4
CHEM 2303		3 CHEM 2304	3
CHEM 2203		2 CHEM 2204	2
Mathematics Core		4 American History Core	3
MATH 2413		Creative Arts Core	3
American History Core		3 HKIN, KINE or DANC Physical Activity Course	1
HKIN, KINE or DANC Physical Activity Course		1	
Total		17 Total	16

Total Hours: 33

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
BIOL 3401		4 BIOL 3402	4
BIOL 3307		3 BIOL 3403	4
Foreign Language I		3 Foreign Language II	3
PHYS 1101		1 PHYS 1102	1
Life and Physical Sciences Core		3 Life and Physical Sciences Core	3
Government/Political Science Core		3 Government/Political Science Core	3
POSC 2305		POSC 2306	
Total		17 Total	18

Total Hours: 35

Senior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Advanced BIOL Elective I		4 Advanced BIOL Elective III	4
Advanced BIOL Elective II		4 Advanced BIOL Elective IV	2
Component Area Option Two Core		3 Advanced BIOL Elective V	1
HKIN, KINE or DANC Physical Activity Course		1 Language, Philosophy, and Culture Core	3
		Social and Behavioral Sciences Core	3
Total		12 Total	13

Total Hours: 25

Name	Unit
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Total Semester Credit Hours: 125

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

BS Biology

Degree Skills

1. Research/Data analysis
2. Oral/Written communication
3. Technology

Co-curricular and Extracurricular Skills

1. Global/Intercultural fluency
2. Collaboration/Teamwork
3. Leadership

Department of Chemistry

Purpose and Goals

The Bachelor of Science in Chemistry program is designed to provide a 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 the Texas Physics Consortium (TPC) for the following universities: Prairie View A&M University, Tarleton State University, Texas A&M University-Corpus Christi, Texas A&M University-Kingsville, West Texas A&M University, Texas Southern University, and Mid Western State University. This consortium undergraduate BS 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).

Concentrations

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 MD, DDS, or DVM. 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 careers in crime laboratories, drug enforcement agencies, food and drug administration, and other related agencies.

Requirements for Chemistry as a Minor

Students who select Chemistry as a minor must complete 24 semester credit hours from the following courses with a minimum grade of a "C":

Requirements for Chemistry Minors

CHEM 1203	General Chemistry Lab
CHEM 1303	General Inorganic Chemistry I
CHEM 1204	General Inorganic Chemistry Laboratory II

CHEM 1304	General Inorganic Chemistry II
CHEM 2201	Quantitative Analysis
CHEM 2211	Quantitative Analysis Lab
CHEM 2203	Organic Chemistry Lab I
CHEM 2303	General Organic Chemistry I
CHEM 2204	Organic Chemistry Lab II
CHEM 2304	General Organic Chemistry II
CHEM 3341	Physical Chemistry
CHEM 3342	Physical Chemistry
CHEM 4100	Journal Reading and Chemical Literature
CHEM 4303	Biochemistry
CHEM 4204	Biochemistry Laboratory
CHEM 4105	Research

Total Hours
24

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 lower division 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.

Courses

CHEM 1106 General Chemistry Lab: 1 semester hour.

A laboratory course in general chemistry for students in the health sciences.

Prerequisites: CHEM 1306 (may be taken concurrently) or CHEM 1053 (may be taken concurrently).

CHEM 1111 General Chemistry Lab I: 1 semester hour.

A general laboratory course covering aspects of qualitative and quantitative analysis and determination of chemical and physical properties.

Prerequisites: (CHEM 1311 or CHEM 1013) or (CHEM 1303 or CHEM 1033) or (MATH 1314 or MATH 1113).

CHEM 1112 General Chemistry Lab II: 1 semester hour.

The second semester continuation of CHEM 1111. A general laboratory course covering aspects of qualitative and quantitative analysis and determination of chemical and physical properties.

Prerequisites: ((MATH 1314 or MATH 1113) or (MATH 1511 or MATH 1115)) and ((CHEM 1403 (may be taken concurrently) or CHEM 1034 (may be taken concurrently)) or (CHEM 1304 (may be taken concurrently) or CHEM 1043 (may be taken concurrently))).

CHEM 1203 General Chemistry Lab: 2 semester hours.

For students majoring or minoring 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 1314 (may be taken concurrently) or MATH 1113 (may be taken concurrently)) or (MATH 1511 (may be taken concurrently) or MATH 1115 (may be taken concurrently))) and (CHEM 1303 or CHEM 1033).

CHEM 1204 General Inorganic Chemistry Laboratory II: 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 1314) or (MATH 1511 or MATH 1115)) and (CHEM 1043 or CHEM 1304).

CHEM 1303 General Inorganic Chemistry I: 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 1314 or MATH 1113) or (MATH 1511 or MATH 1115).

CHEM 1304 General Inorganic Chemistry II: 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 1314 or MATH 1113) or (CHEM 1303 or CHEM 1033).

CHEM 1306 Introductory Chemistry I: 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 1311 General 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 1314 or MATH 1113.

Co-requisite: MATH 1314.

CHEM 1403 Chemistry for Engineers: 4 semester hours.

Fundamental and Physical principles in chemistry, bonding, thermodynamics and kinetics with emphasis to engineering applications.

Prerequisites: (CHEM 1303 or CHEM 1033) or (CHEM 1311 or CHEM 1013).

CHEM 2201 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 1303 or CHEM 1033) and (CHEM 1204 or CHEM 1042) and (CHEM 1304 or CHEM 1043).

CHEM 2203 Organic Chemistry Lab I: 2 semester hours.

A laboratory course including qualitative and quantitative investigations focusing on preparation and characterization of organic compounds.

Prerequisites: CHEM 2303 (may be taken concurrently) or CHEM 2033 (may be taken concurrently).

CHEM 2204 Organic Chemistry Lab II: 2 semester hours.

This is a continuation of CHEM 2203.

Prerequisites: CHEM 2304 (may be taken concurrently) or CHEM 2043 (may be taken concurrently).

CHEM 2211 Quantitative Analysis Lab: 2 semester hours.

This course is a continuation of the CHEM 2201.

Prerequisites: (CHEM 1204 or CHEM 1042) and (CHEM 2201 (may be taken concurrently) or CHEM 2012 (may be taken concurrently)).

CHEM 2303 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 1304 or CHEM 1043.

CHEM 2304 General Organic Chemistry II: 3 semester hours.

For chemistry majors and minors, chemical engineering, and science majors. A continuation of CHEM 2303. 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 2303 or CHEM 2033.

CHEM 3242 Physical Chemistry Lab: 2 semester hours.

A laboratory course including experimental studies in chemical thermodynamics, equilibria, chemical kinetics, transport properties, spectroscopy, and molecular structure.

Prerequisites: CHEM 3341 (may be taken concurrently) or CHEM 3413.

Co-requisite: CHEM 3341.

CHEM 3243 Physical Chemistry Lab: 2 semester hours.

This course is a continuation of CHEM 3242.

Co-requisite: CHEM 3342.

CHEM 3341 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 1304 or CHEM 1403) and (MATH 2413 or MATH 1124).

CHEM 3342 Physical Chemistry: 3 semester hours.

A continuation of CHEM 3413. Rate processes, kinetic theory and transport properties of gasses and liquids. An introduction to the Fundamentals of Quantum mechanics and spectroscopy. Atomic and molecular structure. Electric and magnetic properties of molecules.

Prerequisites: MATH 2320 or MATH 2043 and (CHEM 3341 or CHEM 3413).

CHEM 3350 Introduction to Cosmetic Chemistry: 3 semester hours.

This class is for students majoring in a science or health field. A lecture course covering introductory aspects of Cosmetic Chemistry, including Classification of Cosmetics, Dosage Forms of Cosmetics, Manufacturing Practices, Labeling Cosmetics, Current Rules and Regulations for Cosmetics. Prerequisites: BIOL 1501 or BIOL 1015 or BIOL 1308 or BIOL 1113 and (CHEM 1303 or CHEM 1033 or CHEM 1306 or CHEM 1053 or CHEM 1311 or CHEM 1013).

CHEM 3351 Introduction to Green and Sustainable Chemistry Principles: 3 semester hours.

Introduction to Green and Sustainable Chemistry Principles. This course will explore the fundamentals of chemistry, how chemistry can help address global human health and environmental issues. It introduces the foundational principles of chemistry, including atoms, molecules, chemical reactions, stoichiometry, chemical/physical properties, and periodic table trends. This knowledge is then related to various environmental and human health issues. It develops the appropriate solutions using green chemistry approaches covered in the course. Prerequisites: CHEM 1033 or CHEM 1303 and (CHEM 2303 or CHEM 2033).

CHEM 4100 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 4105 Research: 1 semester hour.

Library and laboratory work on selected problems.

CHEM 4106 Research: 1 semester hour.

Library and laboratory work on selected problems.

CHEM 4203 Forensic Chemistry Lab: 2 semester hours.

Drug identification and confirmatory tests using spectroscopic techniques that include HPLC, GC, ICP/ AES, FTIR. Sample handling and storage. Prerequisites: CHEM 4305 or CHEM 4053.

CHEM 4204 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 4303 (may be taken concurrently) or CHEM 4033 (may be taken concurrently).

Co-requisite: CHEM 4303.

CHEM 4205 Instrumental Analysis Lab: 2 semester hours.

Laboratory course that includes experimental applications of spectroscopy, electro-analytical methods, and chromatography.

Co-requisite: CHEM 4305.

CHEM 4302 Forensic Chemistry: 3 semester hours.

Introduction to forensic science, chemical evidence handling, analysis and drug classification. Sampling techniques in forensic chemistry.

Prerequisites: CHEM 2304 or CHEM 2043.

Co-requisite: CHEM 4303.

CHEM 4303 Biochemistry: 3 semester hours.

A study of the chemistry of biological molecules: proteins, lipids, carbohydrates and nucleic acids. Enzyme catalysis, Bioenergetics, Metabolism of carbohydrates, fats and proteins. Interrelationship of the metabolic pathways.

Prerequisites: CHEM 2303 or CHEM 2033 and CHEM 2304 or CHEM 2043.

CHEM 4305 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 3341 or CHEM 3413.

CHEM 4306 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 3341 or CHEM 3413.

CHEM 4399 Independent Study: 1-3 semester hour.

Readings, research, and/or field work on selected topics.

CHEM 5232 Instrumental Lab: 2 semester hours.

An integrated laboratory that uses modern instrumentation to analyze complex chemical systems. Theories and principles encountered in CHEM 5313 (5331) and CHEM 5323(5332) will provide the basis for bulk, surface, and interfacial analysis at the atomic and molecular levels.

Prerequisites: CHEM 5331 or CHEM 5313 and (CHEM 5332 or CHEM 5323).

CHEM 5240 Advanced Organic Chemistry: 2 semester hours.

A review of elementary Organic Chemistry with an extension of more advanced topics. Includes assigned subject materials.

CHEM 5301 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 5302 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 5321 Polymer Chemistry: 3 semester hours.

Mechanisms of polymerization reactions of monomers and molecular weight distributions of products; principles, limitations and advantages of most important methods of molecular weight determination; relationship of physical properties to structure and composition; correlations of applications with chemical constitution.

Prerequisites: CHEM 2303 or CHEM 2033.

CHEM 5331 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 5378 or CHEM 5738.

CHEM 5332 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 5378 or CHEM 5783.

CHEM 5361 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 5378 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 5399 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.

CHEM 5441 Identification of Organic Compounds: 4 semester hours.

The separation and identification of pure organic compounds and mixtures.

CHEM 5453 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 5499 Independent Study: 1-4 semester hour.

Individual studies in advanced chemistry, reading, literature research/analysis/problem solving/writing research reports on selected topics in advanced chemistry.

CHEM 5602 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.

Undergraduate

Purpose and Goals

The Chemistry Department offers a Bachelor of Science in Chemistry. The department is an ACS-accredited program that has multimedia-equipped classrooms, modern laboratories, and state-of-the-art instrumentation for teaching and research in chemistry and allied fields. Our faculty members have specializations in analytical, environmental, inorganic, organic, physical, and biochemistry. We create a personal and supportive environment for our students, and faculty are directly involved in the professional development of students through undergraduate and graduate research. Most of our students continue in chemistry-related fields after graduation, often attending graduate schools in chemistry, biochemistry, and medicine, or pursuing careers in industrial research or biomedical sciences.

Chemistry, BS

Bachelor of Science in Chemistry Degree Program Requirements

Complete Core Curriculum Listing at <https://catalog.pvamu.edu/universitycorecurriculum/>

Core Curriculum 42 Credit Hours

Communication (Select Two)		6
Mathematics		3
MATH 1316	Trigonometry	
Life and Physical Sciences		6
PHYS 2325 or PHYS 1301	University Physics I General Physics I	
PHYS 2326 or PHYS 1302	University Physics II General Physics II	
Language, Philosophy, and Culture (Select One)		3
Creative Arts (Select One)		3
American History (Select Two)		6
Government/Political Science		6
POSC 2305	American Government	
POSC 2306	Texas Government	
Social and Behavioral Sciences (Select One)		3
Component Area Option One (Select One)		3
Component Area Option Two (Select One)		3
Departmental Requirements (Foreign Language Elective - one language)		6
Major Requirements ¹		36
CHEM 1203	General Chemistry Lab	
CHEM 1303	General Inorganic Chemistry I	
CHEM 1204	General Inorganic Chemistry Laboratory II	
CHEM 1304	General Inorganic Chemistry II	
CHEM 2201	Quantitative Analysis	
CHEM 2211	Quantitative Analysis Lab	
CHEM 2203	Organic Chemistry Lab I	
CHEM 2303	General Organic Chemistry I	
CHEM 2204	Organic Chemistry Lab II	
CHEM 2304	General Organic Chemistry II	
CHEM 3341	Physical Chemistry	
CHEM 3242	Physical Chemistry Lab	
CHEM 4303	Biochemistry	
CHEM 4105	Research	
CHEM 4305	Instrumental Analysis	
Support Area		13
BIOL 1501	General Biology	
MATH 2413	Calculus with Analytic Geometry I	
MATH 2414	Calculus with Analytic Geometry II	
Select one of the following concentrations from below		23
Total Hours		120

Traditional Chemistry Concentration

CHEM 3342	Physical Chemistry	3
CHEM 3243	Physical Chemistry Lab	2
CHEM 4100	Journal Reading and Chemical Literature	1
CHEM 4205	Instrumental Analysis Lab	2
CHEM 4106	Research	1
CHEM 4306	Inorganic Chemistry	3
MATH 3401	Calculus III	4
PHYS 1101	General Physics Lab I	1
PHYS 1102	General Physics Lab II	1

Restricted electives (Select 5 hours from the courses below):		5
BIOL 1102	Biology Seminar	
BIOL 3401	Human Physiology and Anatomy	
BIOL 3402	Human Physiology and Anatomy	
BIOL 3403	General Microbiology	
CHEM 3350	Introduction to Cosmetic Chemistry	
CHEM 3351	Introduction to Green and Sustainable Chemistry Principles	
CHEM 4302	Forensic Chemistry	
CHEM 4204	Biochemistry Laboratory	
Total Hours		23

Biomedical Science Concentration

BIOL 1502	General Biology	5
BIOL 3401	Human Physiology and Anatomy	4
MATH 1342	Elementary Statistics	3
PHYS 1101	General Physics Lab I	1
PHYS 1102	General Physics Lab II	1

Restricted Electives (Select 9 hours from the courses below): **9**

BIOL 1102	Biology Seminar	
BIOL 2416	Genetics	
BIOL 3402	Human Physiology and Anatomy	
BIOL 3403	General Microbiology	
CHEM 3243	Physical Chemistry Lab	
CHEM 3342	Physical Chemistry	
CHEM 3350	Introduction to Cosmetic Chemistry	
CHEM 3351	Introduction to Green and Sustainable Chemistry Principles	
CHEM 4100	Journal Reading and Chemical Literature	
CHEM 4205	Instrumental Analysis Lab	
CHEM 4106	Research	
CHEM 4306	Inorganic Chemistry	

Total Hours **23****Forensic Science Concentration**

CHEM 4100	Journal Reading and Chemical Literature	1
CHEM 4302	Forensic Chemistry	3
CHEM 4203	Forensic Chemistry Lab ²	2
CHEM 4306	Inorganic Chemistry	3
MATH 1342	Elementary Statistics	3
PHYS 2125	University Physics Lab I	1
PHYS 2126	University Physics Lab II	1

Restricted Electives (Select 9 hours from the following courses): **9**

CHEM 3350	Introduction to Cosmetic Chemistry	
CHEM 3351	Introduction to Green and Sustainable Chemistry Principles	
CRIJ 1301	Introduction to Criminal Justice	
CRIJ 1306	Court Systems and Practices	
CRIJ 3362	Criminal Law	
CRIJ 4392	Criminology	
BIOL 1502	General Biology	
BIOL 2416	Genetics	
BIOL 3401	Human Physiology and Anatomy	
BIOL 3402	Human Physiology and Anatomy	
BIOL 3403	General Microbiology	
BIOL 3404	Immunology	

BIOL 3307	Molecular Biology I	
Total Hours		23

¹ Students majoring in Chemistry must earn a minimum grade of "C" in all classes taken in their major disciplines

² A six-week summer internship or externship in an approved forensic laboratory or DEA Laboratory can be used to earn credit for CHEM 4203 by submitting a detailed report of laboratory techniques acquired during the externship

Bachelor of Science in Chemistry- Traditional Degree Sequence

Core: <https://catalog.pvamu.edu/universitycorecurriculum/>

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
CHEM 1303		3 CHEM 1304		3 American History Core	3
CHEM 1203		2 CHEM 1204		2	
Communication Core		3 Communication Core		3	
Component Area Option Two Core		3 American History Core		3	
Mathematics Core		3 MATH 2413		4	
MATH 1316					
Total		14 Total		15 Total	3

Total Hours: 32

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours
CHEM 2203		2 CHEM 2204	2
CHEM 2303		3 CHEM 2304	3
Government/Political Science Core		3 Government/Political Science Core	3
POSC 2305		POSC 2306	
BIOL 1501		5 Language, Philosophy, and Culture Core	3
CHEM 2201		2 MATH 2414	4
CHEM 2211		2	
Total		17 Total	15

Total Hours: 32

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
PHYS 1101		1 Component Area Option One Core	3
Life and Physical Sciences Core		3 Life and Physical Sciences Core	3
PHYS 2325		PHYS 2326	
CHEM 3341		3 PHYS 1102	1
CHEM 3242		2 CHEM 4100	1
Creative Arts Core		3 CHEM 3342	3
CHEM 4105		1 CHEM 3243	2
Restricted Elective		1 Social and Behavioral Sciences Core	3
Total		14 Total	16

Total Hours: 30

Senior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
CHEM 4303		3 CHEM 4306	3
MATH 3401		4 CHEM 4305	3
Restricted Elective		4 CHEM 4205	2
Foreign Language I		3 CHEM 4106	1

Foreign Language II 3

Total 14 Total 12**Total Hours: 26****Name** **Unit**

Total Semester Credit Hours: 120

BS Chemistry-Biomedical Science

Core: <https://catalog.pvamu.edu/universitycorecurriculum/>

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
CHEM 1303		3 CHEM 1304		3 American History Core	3
CHEM 1203		2 CHEM 1204		2	
Communication Core		3 Communication Core		3	
Component Area Option One Core		3 American History Core		3	
Mathematics Core		3 MATH 2413		4	
MATH 1316					
Total		14 Total		15 Total	3

Total Hours: 32

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours
CHEM 2203		2 CHEM 2204	2
CHEM 2303		3 CHEM 2304	3
Government/Political Science Core		3 Government/Political Science Core	3
POSC 2305		POSC 2306	
BIOL 1501		5 BIOL 1502	5
CHEM 2201		2 MATH 2414	4
CHEM 2211		2	
Total		17 Total	17

Total Hours: 34

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
PHYS 1101		1 CHEM 4105	1
Life and Physical Sciences Core		3 Life and Physical Sciences Core	3
PHYS 2325		PHYS 2326	
CHEM 3341		3 PHYS 1102	1
CHEM 3242		2 Social and Behavioral Sciences Core	3
BIOL 3401		4 MATH 1342	3
Language, Philosophy, and Culture Core		3 Creative Arts Core	3
Total		16 Total	14

Total Hours: 30

Senior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
CHEM 4303		3 Component Area Option Two Core	3
Restricted Elective		3 CHEM 4305	3
Restricted Elective		3 Research Elective	3

Foreign Language I	3 Foreign Language II	3
Total	12 Total	12

Total Hours: 24

Name	Unit
Total Semester Credit Hours: 120	

BS Chemistry-Forensic Science

Core: <https://catalog.pvamu.edu/universitycorecurriculum/>

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
CHEM 1303		3 CHEM 1304		3 American History Core	3
CHEM 1203		2 CHEM 1204		2	
Communication Core		3 Communication Core		3	
Component Area Option Two Core		3 American History Core		3	
Mathematics Core		3 MATH 2413		4	
MATH 1316					
Total		14 Total		15 Total	3

Total Hours: 32

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours
CHEM 2203		2 CHEM 2204	2
CHEM 2303		3 CHEM 2304	3
Government/Political Science Core		3 Government/Political Science Core	3
POSC 2305		POSC 2306	
BIOL 1501		5 Language, Philosophy, and Culture Core	3
CHEM 2201		2 MATH 2414	4
CHEM 2211		2	
Total		17 Total	15

Total Hours: 32

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
PHYS 2125		1 CHEM 4305	3
Life and Physical Sciences Core		3 Life and Physical Sciences	3
PHYS 2325		PHYS 2326	
CHEM 3341		3 PHYS 2126	1
CHEM 3242		2 CHEM 4100	1
Creative Arts Core		3 CHEM 4302	3
MATH 1342		3 CHEM 4203	2
Total		15 Total	13

Total Hours: 28

Senior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
CHEM 4303		3 CHEM 4306	3
CHEM 4105		1 Component Area Option Two Core	3
Social and Behavioral Sciences Core		3 Restricted Elective	3
Restricted Elective		3 Restricted Elective	3

Foreign Language I	3 Foreign Language II	3
Total	13 Total	15

Total Hours: 28

Name	Unit
Total Semester Credit Hours: 120	

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

BS Chemistry

Degree Skills

1. Conduct scientific research
2. Analyze and summarize data
3. Use of diverse instrumentation

Concentration Skills

1. Project management
2. Environmental analysis
3. Problem solving

Co-curricular and Extracurricular Skills

1. Mathematics
2. Computer programming
3. Technical writing and presentation skills

Graduate

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 MS 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 must meet the admission requirements as outlined by the Office of Graduate Studies. Additional information on admission requirements is available in the Academic Catalog Graduate Studies (<https://catalog.pvamu.edu/admissionsinformationandrequirements/applytograduateschool/>) section.

Program Requirements

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 Graduate Studies for approval. Research projects for the thesis will be assigned before the student is approved as a candidate.

Chemistry, MS

Master of Science in Chemistry Degree Program Requirements

It is recommended that students who plan to qualify for the MS in Chemistry spend at least one year in residence and students who plan to study during the summer periods plan to devote at least one summer to research.

Each candidate is expected to successfully complete a minimum of 24 semester hours of course work exclusive of research.

Core Classes

CHEM 5232	Instrumental Lab	2
CHEM 5240	Advanced Organic Chemistry	2
CHEM 5332	Instrumental Analysis	3
CHEM 5453	General Biochemistry	4

Electives

Select one from the following courses:

BIOL 5402	Microscopic Anatomy	
CHEM 5321	Polymer Chemistry	
CHEM 5441	Identification of Organic Compounds	

Thesis **6**

Select one concentration from below **9**

Total Hours **30**

Chemistry Concentration

CHEM 5331	Advanced Analytical Chemistry	3
CHEM 5361	Advanced Inorganic Chemistry	3
CHEM 5378	Advanced Physical Chemistry	3

Total Hours **9**

Chemical Biology Concentration

BIOL 5301	Genomics	3
BIOL 5306	Micro Activ Toxicology	3
BIOL 5312	Cell Biology	3

Total Hours **9**

Master of Science in Chemistry-Chemistry Concentration Degree Sequence

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
CHEM 5453		4 CHEM 5441	4
CHEM 5332		3 or BIOL 5402	
CHEM 5232		2 CHEM 5331	3
CHEM 5240		2 CHEM 5378	3
Total		11 Total	10

Total Hours: 21

Second Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
CHEM 5361		3 CHEM 5602	6
Total		3 Total	6

Total Hours: 9

Name	Unit
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Total Semester Credit Hours: 30

MS Chemistry-Chemical Biology Concentration

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
CHEM 5453		4 CHEM 5441	4
CHEM 5332		3 or BIOL 5402	
CHEM 5232		2 BIOL 5301	3
CHEM 5240		2 BIOL 5306	3
Total	11 Total		10

Total Hours: 21

Second Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
BIOL 5312		3 CHEM 5602	6
Total		3 Total	6

Total Hours: 9

Name	Unit
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Total Semester Credit Hours: 30

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

MS Chemistry

Degree Skills

1. Ability to utilize advanced chemical synthesis methods
2. Pharmaceutical manufacturing
3. Environmental analysis
4. Forensic analysis

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 an 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 coursework, clinical practica, and other educational and training experiences will support the 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 the demonstration of targeted competencies as they proceed through course work and clinical practica training.

Instructional Organization

Program	Degree Offered
Psychology	BS
Juvenile Forensic Psychology*	MSJFP
Clinical Adolescent Psychology	MS, PhD

* This program is on moratorium and currently not accepting applicants.

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.

PSYC 2301	General Psychology	3
PSYC 2308	Child Psychology	3
PSYC 2317	Statistical Methods in Psychology	3
PSYC 4361	Physiological Psychology	3
Psychology Electives		9
Total Hours		21

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.

Clinical Psychology Courses

CPSY 7163 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 7282 Practicum I: 2 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 7283 Practicum II: 2 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 7284 Practicum III: 2 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 7285 Practicum IV: 2 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, staff and case conferences.

CPSY 7286 Practicum V: 2 semester hours.

Provides supervised experience in the assessment, management and treatment of clients. Students work in an the PV Psychological Clinic or an approved institutional setting such as a prison, court, special treatment clinic, hospital or rehabilitation setting. Training includes interviewing and taking case histories, observations, staff and case conferences.

CPSY 7287 Practicum VI: 2 semester hours.

Provides supervised experience in the assessment, management and treatment of clients. Students work in the PV Psychological Clinic or an approved external setting such as a prison, court, special treatment clinic, hospital or rehabilitation setting. Training includes interviewing, taking case histories, interventions, assessments and case conferences.

CPSY 7362 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 7365 Thesis I: 3 semester hours.

Independent and original research leading to the completion of an acceptable empirical master's thesis.

CPSY 7366 Thesis II: 3 semester hours.

Independent and original research leading to the completion of an acceptable empirical master's thesis.

CPSY 7367 Thesis III: 3 semester hours.

Independent and original research leading to the completion of an acceptable empirical master's thesis.

CPSY 7368 Thesis IV: 3 semester hours.

Independent and original research leading to the completion of an acceptable empirical master's thesis.

CPSY 7370 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 neurophysiologic aspects of cognition are reviewed as well as the history and philosophy of cognitive psychology.

CPSY 7371 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 7373 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 7374 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 7375 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 7376 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 7378 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 7379 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 7380 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; ethical, 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 7381 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 7382 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 7383 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 7384 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 7385 Practicum IV: 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, staff and case conferences.

CPSY 7386 Practicum V: 3 semester hours.

Provides supervised experience in the assessment, management and treatment of clients. Students work in an the PV Psychological Clinic or an approved institutional setting such as a prison, court, special treatment clinic, hospital or rehabilitation setting. Training includes interviewing and taking case histories, observations, staff and case conferences.

CPSY 7387 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 7388 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 7389 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 7391 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 7393 History and 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 7394 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 7395 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 7396 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 7397 Family Systems and Therapy: 3 semester hours.

A review of models of family therapy. This course offers an understanding of theories of family systems in contexts of varying family structures, race, ethnicity, and gender. The content includes the development of specific skills to identify, diagnose and treat family problems. The course will present strategies and techniques for family interventions.

CPSY 7398 Cognitive Behavioral Therapy: 3 semester hours.

This course will provide knowledge of various cognitive-behavioral models of common psychological disorders. Students will learn the theory underlying the Cognitive-Behavioral approach as well as learn to conceptualize cases from the a cognitive-behavioral perspective. Students will review empirical data relevant to better understand the evidence and efficacy of implementing the cognitive-behavioral approach with specific disorders. Students will also have the opportunity to demonstrate their understanding of the subject matter in individual and group training exercises.

CPSY 8194 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. Students enroll in this course is during the first semester of the internship year.

Prerequisites: (CPSY 7382 or CPSY 7823) and (CPSY 7383 or CPSY 7833).

CPSY 8195 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. Students enroll in this course during the second semester of the internship year.

Prerequisites: CPSY 8194 or CPSY 8941.

CPSY 8196 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 8195 or CPSY 8951.

CPSY 8391 Dissertation I: 3 semester hours.

Independent and original research leading to an acceptable doctoral dissertation.

CPSY 8392 Dissertation II: 3 semester hours.

Independent and original research leading to an acceptable doctoral dissertation.

CPSY 8393 Dissertation III: 3 semester hours.

Independent and original research leading to an acceptable doctoral dissertation.

CPSY 8394 Dissertation IV: 3 semester hours.

Independent and original research leading to an acceptable doctoral dissertation.

CPSY 8694 Internship I: 6 semester hours.

Internship is a full-time placement at a site approved and accredited by the American Psychological Association.

CPSY 8698 Internship II: 6 semester hours.

Internship is a full-time placement at a site approved and accredited by the American Psychological Association.

Psychology Courses

PSYC 0134 Math Skills Statistics: 1 semester hour.

This course will enhance the student's performance in Fundamentals of Statistics. It improves skills in solving linear equations; graphing and interpreting linear models; and reading and applying formulas. It develops an understanding of numeracy and the real number system, including conversions between and calculations with fractions, decimals and percentages, necessary for successfully completing the Fundamental of Statistics course. A co-requisite course for those students who have not passed TSIA Math, to be taken in conjunction with Fundamental of Statistics.

Co-requisite: PSYC 2317.

PSYC 1141 Careers in Psychology: 1 semester hour.

This course is designed to provide students with knowledge of different careers one can pursue in psychology.

PSYC 2301 General Psychology: 3 semester hours.

Introduction to fundamental psychological concepts derived from the application of scientific method to the study of behavior.

PSYC 2308 Child Psychology: 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 2301 or PSYC 1113.

PSYC 2316 Psychology of 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 2317 Statistical Methods in Psychology: 3 semester hours.

Introduces basic statistical concepts and the relevance of statistics in the every day 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 3322 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 3324 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 2317 or PSYC 2613.

PSYC 3325 Clinical Psychology: 3 semester hours.

A survey of counseling and interview techniques and use of psychological test findings in support of counseling procedures.

Prerequisites: PSYC 1113 or PSYC 2301.

PSYC 3331 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 2301 or PSYC 1113.

PSYC 3332 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 2301 or PSYC 1113.

PSYC 3341 Drugs and Behavior: 3 semester hours.

This course covers the basic principles of psychopharmacology: what drugs are and how they influence psychological phenomena. Various forms of drug use and abuse are examined. Upon completion of this course, students will be able to understand how and why drugs are used for treatment for psychopathological and neuropsychological conditions; mechanisms of addiction; tolerance and abuse; the social recreational and religious context; and the history of substance abuse.

Prerequisites: PSYC 2301 or PSYC 1113.

PSYC 3343 Experimental Psychology: 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 2317 or PSYC 2613.

PSYC 3354 Hist Sys Psyc: 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 3360 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 3361 Stat For Psyc 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 2317 or PSYC 2613.

PSYC 3362 Community Psychology: 3 semester hours.

This course provides an introduction to the field of community psychology. Community psychologists study person-environment interactions and the various ways individuals navigate between different social context, e.g. schools, neighborhood, community, and society; and, community psychologists employ a variety of methodological approaches to understand many of the social issues facing communities today such as juvenile violence, homelessness, HIV-AIDS, domestic violence, etc.

Prerequisites: PSYC 2301 or PSYC 1113.

PSYC 3364 Positive Psychology: 3 semester hours.

Positive psychology encompasses the study of positive experiences, positive character strengths, positive relationships, and the institutions and practices that facilitate their development. Positive experiences include the mental states of flow and mindfulness and emotions about the present (pleasure, contentment, laughter), past (e.g., nostalgia, satisfaction, pride), and future (e.g., hope, optimism). The positive character traits include wisdom, courage, compassion, love, humanity, justice, temperance, self-efficacy, resilience, grit, creativity, and spirituality/transcendence. The classification of these virtues is explored. Positive relationships include the factors that enhance meaning and well-being among couples, family, friends, co-workers, and the community. Positive institutions are exemplified by positive education, positive work environments, healthy families, humane leadership, and the development of civic virtues. This course also reviews the history of positive psychology and the contributions this new field has made to several traditional research areas in psychology. Consideration will be given to conflicting viewpoints and their respective empirical support, including the benefits of balancing positive with negative emotions, the measurement and development of happiness, and the implications of deliberately attempting to increase it. Throughout the course we will also engage in experiential learning and practical exercises to increase well-being, which will inform our theoretical and empirical understanding of important questions in positive psychology.

Prerequisites: PSYC 2301 or PSYC 1113.

PSYC 3370 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 3372 Psychology and Law: 3 semester hours.

This course is designed to provide an in-depth review of psychology and law with an emphasis on how psychological science has informed various practices in the legal system and the role of psychologists in the legal system. Topics of inquiry include family law, mental health evaluations, legal decision-making, the insanity defense, the death penalty, civil commitment, police investigations, interrogations and confessions, and eyewitness testimony.

Prerequisites: PSYC 1113 or PSYC 2301.

PSYC 3391 Indust Org Psyc: 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 4141 Psychology Internship Supervision: 1 semester hour.

The Internship Course aims to provide students with an opportunity to acquire field experience with emphasis on psychological constructs and methodologies across diverse settings such as mental health services, community organizations, criminal justice venues, and business enterprises.

Prerequisites: (PSYC 2301 or PSYC 1113) and (PSYC 2316 or PSYC 2513) and (PSYC 2317 or PSYC 2613) and (PSYC 3343 or PSYC 3433).

Co-requisite: PSYC 3322.

PSYC 4322 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.

Prerequisites: PSYC 1113 or PSYC 2301.

PSYC 4323 Psychology of Religion: 3 semester hours.

This course is designed to provide an in-depth review of psychology-of-religion theory and research. The required text provides a state-of-the-art review of classic theory and contemporary empirical research.

Prerequisites: PSYC 2301 or PSYC 1113.

PSYC 4325 Clinical Psychology: 3 semester hours.

A survey of counseling and interview techniques and use of psychological test findings in support of counseling procedures.

PSYC 4333 Special Topics in Psychology: 3 semester hours.

The study of specialized areas in Psychology. Topics vary by semester. Course may be repeated for credit when topic varies.

PSYC 4341 Psychology Internship: 1-3 semester hour.

The Internship Course aims to provide students with an opportunity to acquire field experience with emphasis on psychological constructs and methodologies across diverse settings such as mental health services, community organizations, criminal justice venues, and business enterprises. Prerequisites: (PSYC 2301 or PSYC 1113) and (PSYC 2316 or PSYC 2513) and (PSYC 2317 or PSYC 2613) and (PSYC 3343 or PSYC 3433). Co-requisite: PSYC 3322.

PSYC 4343 Multicultural Psychology: 3 semester hours.

This course is an introduction to the principles, theories, and applications of multiculturalism. Students will be required to examine one's own sense of self and others' identity, beliefs and assumptions, and behaviors. Theories, research, and skills will be explored so that students can acquire the necessary multicultural competencies for effective work with children and adolescents from diverse backgrounds (i.e., culture, race, ethnicity, class, gender) in multicultural environments (i.e., public schools, community organizations). Prerequisites: PSYC 2301 or PSYC 1113.

PSYC 4344 Research Methods: 3 semester hours.

Work in designing and carrying on research projects both in laboratory and in more life-like situations. The use and understanding of appropriate statistical procedures are emphasized. Prerequisites: PSYC 2317 or PSYC 2613.

PSYC 4351 Cognitive Psychology: 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 2301 or PSYC 1113. Co-requisite: PSYC 4361.

PSYC 4352 Emotion and Motivation: 3 semester hours.

This course is designed to provide an in-depth review of the psychology of emotion and motivation with an emphasis on theoretical and physiological approaches to understanding emotion and motivation through the applications of psychological science. Topics include the origin of motivations and emotions, structures associated in the brain, functions of emotions and motivations, and current directions. Prerequisites: PSYC 1113 or PSYC 2301.

PSYC 4353 Psychology of Sex and Gender: 3 semester hours.

This course is designed to provide students with knowledge about the origins and psychological effects of gender differences and sexual orientation. Prerequisites: PSYC 2301 or PSYC 1113.

PSYC 4355 Social Cognition: 3 semester hours.

This course is designed to provide students with knowledge about important research from a social cognition perspective. Prerequisites: PSYC 2301 or PSYC 1113.

PSYC 4361 Physiological Psychology: 3 semester hours.

Neurophysiologic correlates and systems underlying behavior. Physiological processes underlying sensory-motor activity, motivation and learning.

PSYC 4363 Sensation Perception: 3 semester hours.

Examines the sensory processes, the relationship between physical stimuli and sensory/perceptual experience, and perceptual phenomena. Prerequisites: PSYC 4361 or PSYC 4613.

PSYC 4364 Stereotypes and Prejudice: 3 semester hours.

This course is designed to provide students with knowledge about the origins and psychological effects of stereotypes, prejudice, and discrimination. Students will also learn about interventions that reduce stereotyping and prejudice. Prerequisites: PSYC 2301 or PSYC 1113.

PSYC 4373 Cross-Cultural Psychology: 3 semester hours.

This course is designed to provide students with knowledge about the effect of culture on psychological phenomenon. Topics include differences between individualistic and collectivistic cultures, as well as differences between culture of honor, dignity, and face. Prerequisites: PSYC 2301 or PSYC 1113.

PSYC 4382 Reading and Research: 3 semester hours.

Offered when demand warrants. Seminar or projects on various topics in psychology.

PSYC 4383 African American Psychology: 3 semester hours.

African-American Psychology is designed to introduce advanced undergraduate students to the research, theories, and paradigms developed to understand the attitudes, behaviors, psychosocial and educational realities of African-American. In order to gain a more accurate understanding of the psychosocial realities of African-Americans it is essential to understand intersectionality. Prerequisites: PSYC 2301 or PSYC 1113.

PSYC 4384 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 2317 or PSYC 2613) and (PSYC 3343 or PSYC 3433) and (PSYC 3361 or PSYC 3613) and (PSYC 4344 or PSYC 4443).

PSYC 4391 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 2301 or PSYC 1113.

PSYC 4393 Chicano/Latinx Psychology: 3 semester hours.

This course will familiarize the student with the personal, social, cultural and institutional forces that affect Hispanics. The course will explore the sociopolitical issues that affect Chicano/Latinx and how they affect their psychological well-being.

Prerequisites: PSYC 2301 or PSYC 1113.

PSYC 4399 Independent Study: 1-3 semester hour.

Reading, research and/or field work on selected topics.

PSYC 4444 Research Methods: 4 semester hours.

Work in designing and carrying on research projects both in laboratory and in more life-like situations. The use and understanding of appropriate statistical procedures are emphasized.

Prerequisites: (PSYC 1113 or PSYC 2301) and (PSYC 2613 or PSYC 2317).

PSYC 4484 Senior Paper: 4 semester hours.

An in-depth study of a specific research topic in psychology. An oral presentation is a requirement of the course.

Prerequisites: PSYC 1113 or PSYC 2301 and (PSYC 2613 or PSYC 2317) and (PSYC 4444).

Undergraduate

Purpose and Goals

The Department of Psychology offers a Bachelor of Science in Psychology. Our faculty are dedicated teachers and mentors. The degree program at PVAMU has substantial opportunities for students to choose courses adapted to their interests. In addition to traditional classes, our curriculum includes laboratory experiences and the opportunity to participate in practicum and internship experiences. One of the most exciting opportunities for undergraduate students is learning through application, working with faculty in their labs on current research to understand and sustain their interests in psychology.

Psychology, BS

Bachelor of Science in Psychology Degree Program Requirements

Departmental Requirements

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

Complete Core Curriculum Listing at <https://catalog.pvamu.edu/universitycorecurriculum/>

Core Curriculum 42 Credit Hours

Communication (Select Two)	6
Mathematics (Select One)	3
Except PSYC 2317 (a Major Requirement Course)	
Life and Physical Sciences (Select Two)	6
Language, Philosophy, and Culture (Select One)	3
Creative Arts (Select One)	3
American History (Select Two)	6
Government/Political Science	6
POSC 2305 American Government	
POSC 2306 Texas Government	
Social and Behavioral Sciences (Select One)	3
Component Area Option One (Select One)	3
Component Area Option Two (Select One)	3
College Requirement	6
Foreign Language (must take 6 hours in the same language; must complete two semesters to satisfy the language requirement)	
Major Requirements	18
PSYC 1141 Careers in Psychology	
PSYC 2301 General Psychology	
PSYC 2317 Statistical Methods in Psychology	

PSYC 3361	Stat For Psyc II
PSYC 4444	Research Methods
PSYC 4484	Senior Paper
Content Areas	
15	
Block 1. Please choose one of the following courses:	
PSYC 2316	Psychology of Personality
PSYC 3332	Social Psychology
PSYC 3391	Indust Org Psyc
Block 2. Please choose one of the following courses:	
PSYC 2308	Child Psychology
PSYC 3322	Abnormal Psychology
PSYC 3324	Testing
PSYC 3325	Clinical Psychology
PSYC 3341	Drugs and Behavior
Block 3. Please choose one of the following courses:	
PSYC 3331	Psychology of Learning
PSYC 4351	Cognitive Psychology
PSYC 4361	Physiological Psychology
PSYC 4363	Sensation Perception
PSYC 4355	Social Cognition
Block 4. Please choose two of the following courses:	
PSYC 4343	Multicultural Psychology
PSYC 4353	Psychology of Sex and Gender
PSYC 4364	Stereotypes and Prejudice
PSYC 4373	Cross-Cultural Psychology
Psychology Electives	
24	
Select eight (8) of the following not taken in content blocks:	
PSYC 3324	Testing
PSYC 3362	Community Psychology
PSYC 3372	Psychology and Law
PSYC 3364	Positive Psychology
PSYC 4323	Psychology of Religion
PSYC 4352	Emotion and Motivation
PSYC 4383	African American Psychology
PSYC 4393	Chicano/Latinx Psychology
PSYC 3354	Hist Sys Psyc
PSYC 3331	Psychology of Learning
PSYC 3332	Social Psychology
PSYC 3360	Health Psychology
PSYC 3370	Introduction to Forensic Psychology
PSYC 3391	Indust Org Psyc
PSYC 4351	Cognitive Psychology
PSYC 4325	Clinical Psychology
PSYC 4333	Special Topics in Psychology
PSYC 4141	Psychology Internship Supervision ¹
PSYC 4341	Psychology Internship ¹
PSYC 4363	Sensation Perception
PSYC 4382	Reading and Research
PSYC 4391	Psychology Research ¹
Support Area Requirements	
4	
BIOL 2401	Anatomy and Physiology I

Unrestricted Electives	11
Total Hours	120

¹ Course may be repeated for academic credit totaling six (6) credit hours.

Bachelor of Science in Psychology Degree Sequence

Core: <https://catalog.pvamu.edu/universitycorecurriculum/> (<https://catalog.pvamu.edu/universitycorecurriculum/>)

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Communication Core		3 Communication Core	3
Life and Physical Sciences Core		3 Life and Physical Sciences Core	3
American History Core		3 American History Core	3
Mathematics Core		3 Social and Behavioral Science Core	3
PSYC 1141		1 Content Block 1 Requirement	3
PSYC 2301		3	
Total		16 Total	15

Total Hours: 31

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Component Area Option One Core		3 Component Area Option Two Core	3
Government/Political Science Core		3 Government/Political Science Core	3
POSC 2305		POSC 2306	
Creative Arts Core		3 Language, Philosophy, and Culture Core	3
PSYC 2317		3 PSYC 3361	3
BIOL 2401		4 Unrestricted Elective I	3
Total		16 Total	15

Total Hours: 31

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Content Block 2 Requirement		3 Content Block 3 Requirement	3
Unrestricted Elective II		3 Content Block 4 Requirement	3
Psychology Elective I		3 Unrestricted Elective III	3
Psychology Elective II		3 Psychology Elective IV	3
Psychology Elective III		3 Psychology Elective V	3
Total		15 Total	15

Total Hours: 30

Senior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
PSYC 4444		4 PSYC 4484	4
Content Block 4 Requirement		3 Psychology Elective VI	3
Unrestricted Elective IV		2 Psychology Elective VII	3
Foreign Language I		3 Psychology Elective VIII	3
		Foreign Language II	3
Total		12 Total	16

Total Hours: 28

Name	Unit
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Total Semester Credit Hours: 120

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

BS Psychology

Degree Skills

1. Ability to think analytically in diverse settings
2. Use of quantitative research methods
3. Proficiency in written and verbal communication

Co-curricular and Extracurricular Skills

1. Service-minded
2. Ability to manage time in a competing priority environment
3. Ability to use technology

Graduate

Doctor of Philosophy in Clinical Adolescent Psychology

Purpose and Goals

The Department of Psychology offers a PhD in Clinical Adolescent Psychology. The mission of the program is to provide opportunities for diverse doctoral candidates to obtain a quality education that facilitates their advancement as clinical psychology researchers and practitioners equipped to work in a multicultural society. To better serve society, doctoral candidates will learn about clinical and research practices that are ethical, sensitive to culture, and supported by evidence.

The pass-through Master of Science in Clinical Adolescent Psychology is utilized to recognize the completion of a portion of the PhD program; but are not admitted into candidacy for the doctorate. No students are admitted into the master's degree; it is only awarded as a pass-through degree after the completion of the first three years of coursework in the PhD program and the successful defense of the empirical masters thesis.

Admission Requirements

1. The minimum requirement for admission is a Bachelor's degree from an accredited institution. At least 18 hours in Psychology. Must have taken coursework in research methods, statistics, and abnormal/clinical psychology.
2. The Office of Graduate Studies requires an overall 3.0 GPA in undergraduate coursework or 3.5 GPA in all previous graduate work. The applicant must provide official transcripts of all post-secondary academic work sent from institutions directly to the Admissions Committee.
3. Completion of the Clinical Adolescent Psychology Doctoral Program Application.
4. A vita or resume must be submitted to the Admissions Committee
5. Three letters of recommendation from individuals qualified to assess the applicant'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.
6. 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.
7. 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.
8. 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 the 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, interests 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 PhD program.

Program Requirements

The program requires a minimum of 96 semester credit hours for the PhD. Of these, 12 are practica hours, 12 are dissertation hours, and 3 are internship hours. Students will be provided a wide range of settings to do their practica and internship.

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 PhD student on an assistantship is considered to be continuously enrolled when he or she is registered for at least 9 hours in the spring, fall, and 6 hours in the summer.

Residency

Students must establish coursework 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 Arts and Sciences resources, nor can a student attempt comprehensive exams or defend a dissertation.

Good Standing

PhD 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. 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 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 the comprehensive examinations.

Dissertation

Two attempts at passing the dissertation prospectus and dissertation defense are permitted.

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.

Clinical Adolescent Psychology, MS

Master of Science in Clinical Adolescent Psychology Degree Program Requirements

The pass-through master's degree is utilized to recognize the completion of the portion of the PhD program for students in route to the doctorate, and for those who complete this portion of the program but are not admitted into candidacy for the doctorate. No students will be admitted into this master's degree; it will only be awarded as a pass-through degree.

The pass-through master's degree would be awarded after the completion of the first three years of coursework in the PhD program and the successful defense of the empirical masters thesis.

Required Courses

CPSY 7362	Biological Bases of Behavior	3
CPSY 7374	Professional Ethics	3
CPSY 7375	Systems of Psychotherapy	3
CPSY 7380	Psychological Assessment I	3
CPSY 7381	Psychological Assessment II	3
CPSY 7387	Individual Psychotherapy	3
CPSY 7388	Psychopathology	3
CPSY 7394	Research Methods and Design in Clinical Psychology	3
CPSY 7395	Statistical Methods in Psychology	3
CPSY 7396	Advanced Statistical Techniques	3
CPSY 7282	Practicum I	2
CPSY 7283	Practicum II	2
CPSY 7284	Practicum III	2
CPSY 7365	Thesis I	3
CPSY 7366	Thesis II	3
Total Hours		42

Master of Science in Clinical Adolescent Psychology Degree Sequence

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
CPSY 7395		3 CPSY 7396		3 CPSY 7374	3
CPSY 7394		3 CPSY 7380		3 CPSY 7375	3
CPSY 7388		3 CPSY 7387		3	
Total		9 Total		9 Total	6

Total Hours: 24

Second Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
CPSY 7282		2 CPSY 7381		3 CPSY 7362	3
CPSY 7365		3 CPSY 7366		3	
		CPSY 7283		2	
Total		5 Total		8 Total	3

Total Hours: 16

Third Year

Fall - Semester 1	Hours
CPSY 7284	2
Total	2

Total Hours: 2

Name	Unit
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Total Semester Credit Hours: 42

Juvenile Forensic Psychology, MSJFP

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.

*** This program is currently on moratorium and not accepting applicants.**

Admission Requirements

In addition to the general admission requirements to Graduate Studies described elsewhere in the catalog, students seeking admission to the Master of Science (MS) 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 the 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.A. 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.

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 catalog 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 from 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.

- 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", his/her 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 faculty a 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 of 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 in 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 Master's 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 Master's 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 Master's Program Coordinator to discuss reasons for withdrawing. In the event that the Chair of the Thesis Committee is the Master's 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 and committees may determine how and when chapters are to be submitted and approved, and the procedure to be used in the defense. A successful defense of the thesis requires that two of the three committee members vote to pass.

Field Work Externship Experience

The 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. Application to externship includes sending a curriculum vita (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 the 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 for 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 the 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 the 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.

Clinical Adolescent Psychology, PHD

Doctor of Philosophy in Clinical Adolescent Psychology Degree Program Requirements

General Core Requirements		15
CPSY 7370	Cognitive Psychology	
CPSY 7371	Social Psychology	
CPSY 7378	Developmental Psychology	
CPSY 7395	Statistical Methods in Psychology	
CPSY 7396	Advanced Statistical Techniques	
Clinical Course Requirements		54
CPSY 7163	Professional Issues in Clinical Psychology (must be repeated for a total of 6 SCH)	
CPSY 7362	Biological Bases of Behavior	
CPSY 7374	Professional Ethics	

CPSY 7375	Systems of Psychotherapy	
CPSY 7376	Child and Adolescent Psychotherapy	
CPSY 7380	Psychological Assessment I	
CPSY 7381	Psychological Assessment II	
CPSY 7387	Individual Psychotherapy	
CPSY 7388	Psychopathology	
CPSY 7389	Multicultural Issues in Clinical Psychology: Theory, Research and Practice	
CPSY 7393	History and Systems of Psychology	
CPSY 7397	Family Systems and Therapy	
CPSY 7398	Cognitive Behavioral Therapy	
CPSY 7282	Practicum I	
CPSY 7283	Practicum II	
CPSY 7284	Practicum III	
CPSY 7285	Practicum IV	
CPSY 7286	Practicum V	
CPSY 7287	Practicum VI	
Elective		3
Thesis or Electives (select from one of the options below in consultation with advisor)		6
Option 1 ¹		
CPSY 7365	Thesis I	
CPSY 7366	Thesis II	
Option 2		
Any 2 CPSY 7000 level courses		
Research Requirement		3
CPSY 7394	Research Methods and Design in Clinical Psychology	
Dissertation		12
CPSY 8391	Dissertation I	
CPSY 8392	Dissertation II	
CPSY 8393	Dissertation III	
CPSY 8394	Dissertation IV	
CPSY 8194	Internship I	1
CPSY 8195	Internship II	1
CPSY 8196	Internship III	1
Total Hours		96

Doctor of Philosophy in Clinical Adolescent Psychology Degree Sequence

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
CPSY 7395		3 CPSY 7396		3 CPSY 7374	3
CPSY 7394		3 CPSY 7380		3 CPSY 7375	3
CPSY 7388		3 CPSY 7387		3	
CPSY 7163		1 CPSY 7163		1	
Total		10 Total		10 Total	6

Total Hours: 26

Second Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
CPSY 7282		2 CPSY 7381		3 CPSY 7376	3
CPSY 7389		3 CPSY 7283		2 CPSY 7362	3
CPSY 7365		3 CPSY 7366		3	
or Elective Option		or Elective Option			

CPSY 7163	1 CPSY 7163	1	
Total	9 Total	9 Total	6

Total Hours: 24

Third Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
CPSY 7378		3 CPSY 7397		3 CPSY 7393	3
CPSY 7371		3 CPSY 7370		3 CPSY 7398	3
CPSY 7284		2 CPSY 7285		2	
CPSY 7163		1 CPSY 7163		1	
Total		9 Total		9 Total	6

Total Hours: 24

Fourth Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
CPSY 7286		2 CPSY 7287		2 CPSY 8394	3
CPSY 8391		3 CPSY 8393		3	
CPSY 8392		3 Elective		3	
Total		8 Total		8 Total	3

Total Hours: 19

Fifth Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
CPSY 8194		1 CPSY 8195		1 CPSY 8196	1
Total		1 Total		1 Total	1

Total Hours: 3

Name	Unit
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Total Semester Credit Hours: 96

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

Ph.D. Clinical Adolescent Psychology

Degree Skills

1. Research skills in conducting applied research to address the mental health issues
2. Therapeutic skills in the treatment of various mental health issues
3. Advanced communicative skills
4. Advanced analytical skills

Department of Social Work

Purpose and Goals

The Department of Social Work houses both undergraduate and graduate degrees in Social Work, as well as a minor option for those pursuing another degree program. The Bachelor of Social Work (BASW) program prepares its graduates for successful careers, as entry level professional generalist social work practitioners and for advanced study. For graduate studies, the Department offers an online clinical Master of Social Work (MSW)* degree program with a focus on medical and behavioral health interventions.

The Department of Social Work at Prairie View A&M University offers one of the few fully Council on Social Work Education (CSWE) accredited BASW degree programs at Historically Black Colleges and Universities (HBCUs) in the State of Texas. Our graduates are employed world-wide in professional social work agencies and all other areas of human services sectors.

The Department has a vibrant faculty with strong commitment to excellence in teaching, research, and service. The faculty are student centered, and support mentoring and one-on-one advisement of students. The Department has a very low faculty to student ratio, sustains an environment conducive for learning, and is committed to a high level of customer service. The PVAMU Department of Social Work is committed to “*Education for Enhancing Social Change and Making a Difference in People’s Lives.*”

Degree Programs

Program	Degree Offered
Social Work	BASW, MSW

Requirements for a Minor in Social Work

A minor in 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 2361	Introduction to the Field of Social Work	3
SOWK 3311	Social Welfare Policy and Services	3
SOWK 3313	Human Behavior and the Social Environment I	3
SOWK 4312	Social Work Practice I	3
Social Work Electives		6
Total Hours		18

Courses

SOWK 2313 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 2317 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 2361 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 3311 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 3312 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 3311 or SOWK 3113.

SOWK 3313 Human Behavior and the Social Environment I: 3 semester hours.

Dynamics of human behavior and effects of the social environment on individual development. Process of human development adaptation from infancy through adolescence with an examination of developmental states, transitions and problems inclusive of the person in the environment.

SOWK 3314 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 3313 or SOWK 3133.

SOWK 3315 Social Work with At-Risk Juveniles: 3 semester hours.

Emphasizes generalist approach to delinquency prevention, and intervention within the correctional system.

SOWK 3316 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 3321 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 4312 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.

SOWK 4313 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 4312 or SOWK 4123.

SOWK 4314 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 4315 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 4314 or SOWK 4143.

SOWK 4318 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.

SOWK 4334 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 4335 Intervention with Addicted Family: 3 semester hours.

Integration of theory and codependency, mental and physical abuse, and other obsessive behaviors.

SOWK 4617 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 4318.

SOWK 5205 Social Work Research I: 2 semester hours.

This 8-week foundation course is designed to help students gain an understanding of and appreciation for the use of research as a tool for professional evidence-based practice. Students are introduced to the concepts and skills underlying a systematic approach to social work research, including basic research terminology, the scientific method in social work, the value, and ethics of research in social work, problem formulation and conceptualization, measurement, research designs to evaluate programs and practice, sampling, data collection methods and analytic techniques, and preparation and use of research reports. Particular attention is directed to social work research that addresses the social needs of people of color and populations at risk in American society. The emphasis in the course is on equipping students with the research knowledge and skills needed to engage in the evidence-based practice process at all levels of social work practice.

SOWK 5206 Social Work Research II: 2 semester hours.

Building on Research I, this course engages students in the application of scientific research methods to assess social work practice. Students participate in guided research projects which require a review of evidence-based research, data collection and analysis, reporting and implications for social work practice.

Prerequisites: SOWK 5205.

SOWK 5207 Diversity, Oppression, and Inclusion: 2 semester hours.**SOWK 5215 Social Work Policy: 2 semester hours.**

This first required course in the Social Policy sequence examines the history and development of social welfare policy and services in American society, with a major focus on the evolution and contributions of professional social work to this development. Students are exposed to the major curriculum themes within the MSW Program, such as adherence to social work values and ethics, scientific inquiry, empowerment, diversity and social justice. Emphasis is placed on the dynamic relationships between social welfare policy and services and the modern/post-industrial society in the context of social work values and ethics and pursuit of economic, political, and social justice.

SOWK 5300 Human Behavior in the Social Environment: 3 semester hours.

This course is an introductory course that involves the study and exploration of human behavior, and provides a framework for understanding individuals, families, groups, organizations, and communities within the context of interacting physical and social environments. Human behavior is seen as varied and complex, arising from the interplay of several factors (biological, psychological, social, and cultural) which can enhance or impede the social functioning of individuals and social institutions. Traditional and alternative theories and paradigms will be utilized to provide the foundation necessary for organizing and understanding human behavior in the social environment. Special emphasis is given to human diversity, the impact of social and economic forces on individuals and social systems, and populations at risk.

SOWK 5301 Social Work Practice with Individuals and Families: 3 semester hours.

This foundation course in the practice area focuses on the integration of theory, methods and skills as they apply to practice with individuals and families. The foundation of the course is social work values and the ethical decision-making process, as illuminated by the NASW Code of Ethics. The course provides an indepth examination of the helping process within the context of a systems/developmental framework. This course encompasses engaging clients in an appropriate working relationship, communication skills, identifying issues, problems, needs, resources, and assets, and planning for service delivery.

SOWK 5302 Social Work Practice With Groups, Organizations, and Communities: 3 semester hours.

This course builds upon Social Work Practice I by deepening students' knowledge of the generalist social work perspective in the application of theory and practice methods for effective and ethical service delivery to diverse individuals, families, groups, organizations and communities in conjunction with field education.

Prerequisites: SOWK 5308.

SOWK 5303 Clinical Assessment & Diagnosis: 3 semester hours.

This course covers the incidence, etiology, and assessment of health and mental health issues with children, adolescents, adults, and families using a bio-psycho-social-spiritual and cultural approach. Students will master the essential knowledge, understanding and application of the Diagnostic and Statistical Manual of Mental Disorders (DSM-V) and International Classification of Diseases (ICD) behavioral health classification systems for differential assessment and diagnosis of mental disorders, mental illness and related medical issues in clinical social work practice. Psychopharmacology is also covered.

SOWK 5304 Clinical Practice in Medical and Behavioral Healthcare: 3 semester hours.

Methods of clinical social work practice in health care are studied within the framework of the bio-psycho-social -spiritual perspective. This course expands upon the foundation content of the Human Behavior in the Social Environment courses and Practice sequences and Field Education courses. The components of bio-psycho-social -spiritual assessments and interventions are expanded to include understanding of medical concerns, physical function, medical treatment, and the socio-cultural meanings ascribed to illness. Focus also will be directed to issues such as strategies for coping with illness, self-concept, identity formation, and the impact of illness on family relationships.

SOWK 5305 Public Health and Mental Health Policy & Analysis: 3 semester hours.

The purpose of this course is to introduce students to the public health system and policy issues confronting public health practitioners. The course presents an overview of public health policy interventions, the theoretical motivations for undertaking them, the influence of the political, bureaucratic, and social environments in which policy decisions are made, and the population health consequences of such decisions. A key aspect of the course is to develop a framework for analyzing public health policies. Along with conceptual discussions, the course includes case studies of current public health policy issues.

SOWK 5306 Advanced Africentric Theory and Interventions in Healthcare: 3 semester hours.

This course builds upon the specialization core courses and engages students in gaining comprehensive knowledge, awareness, and skills for Africentric social work practice in the medical and behavioral health fields. Students will learn about the history of oppression and resilience of African-descent individuals from a bio-psych-social-cultural-spiritual perspective. The emphasis will be on understanding how Africentric theory dovetails with traditional helping theories and the components of best practices and evidence-based Africentric interventions to address health and mental health disparities for African-descent populations in the US.

SOWK 5307 Advanced Clinical Practice in Medical and Behavioral Healthcare: 3 semester hours.

The objective of this course is to introduce social work students to the direct practice of integrated behavioral health in primary care. Students will become knowledgeable of the roles of behavioral health providers working in primary care settings, theories and models of care, and cross-cultural issues. They will develop skills in engagement, assessment, intervention planning and implementation, and practice evaluation. Because the populations served in primary care settings span the spectrum of severity in both the physical and behavioral health dimensions, students will develop competencies in engaging and supporting patients across a range of health conditions.

Prerequisites: SOWK 5304.

SOWK 5308 Social Work Practicum and Seminar I: 3 semester hours.

This foundation practicum first course facilitates student application of classroom learning in a social service agency. Students will demonstrate their practice competency in all nine CSWE areas of social work practice competency. In this internship students will gain a generalist perspective of social work practice and prepare to move into an advanced area of practice concentration. This course prepares students to apply practice theories, models, and ethical principles in a specific agency setting. Emphasis is placed on promoting competence through strength-based, culturally competent, generalist practice.

SOWK 5309 Global Social Work and Medical and Behavioral Healthcare: 3 semester hours.

The elective course covers advanced theoretical and practical approaches to international Social Work and Medical and Behavioral Health. Particular cultures and specific global medical and behavioral health problems are examined in-depth to promote student acquisition of an international worldview for global human change based on social work values and research-informed practice.

SOWK 5310 Trauma-Informed Practice in Healthcare Settings: 3 semester hours.

This elective course examines the integration and infusion of the meaning of trauma into social work practice to recognize its prevalence, realize its impact, and respond sensitively and competently.

SOWK 5351 Social Work Practicum and Seminar II: 3 semester hours.

This foundation practicum first course facilitates student application of classroom learning in a social service agency. Students will demonstrate their practice competency in all nine CSWE areas of social work practice competency. In this internship students will gain a generalist perspective of social work practice and prepare to move into an advanced area of practice concentration. This course prepares students to apply practice theories, models, and ethical principles in a specific agency setting. Emphasis is placed on promoting competence through strength-based, culturally competent, generalist practice.

Prerequisites: SOWK 5308.

SOWK 5601 Social Work Practicum and Seminar III: 6 semester hours.

Building on Field Instruction I and II, this 6-credit hour course is a supervised practicum within an organization that provides clinical social work services and includes 300 clock hours of field internship.

Prerequisites: SOWK 5308 and SOWK 5351.

SOWK 5602 Social Work Practicum and Seminar IV: 6 semester hours.

Building on Field Instruction I, II, and III, this 6-credit hour course is a supervised practicum within an organization that provides clinical social work services, including 300 clock hours of internship.

Prerequisites: SOWK 5308 and SOWK 5351 and SOWK 5601.

SOWK 6303 Clinical Assessment & Diagnosis: 3 semester hours.

This course covers the incidence, etiology, and assessment of health and mental health issues with children, adolescents, adults, and families using a bio-psycho-social-spiritual and cultural approach. Students will master the essential knowledge, understanding and application of the Diagnostic and Statistical Manual of Mental Disorders (DSM-V) and International Classification of Diseases (ICD) behavioral health classification systems for differential assessment and diagnosis of mental disorders, mental illness and related medical issues in clinical social work practice. Psychopharmacology is also covered.

SOWK 6304 Clinical Practice in Medical and Behavioral Healthcare: 3 semester hours.

Methods of clinical social work practice in health care are studied within the framework of the bio-psycho-social-spiritual perspective. This course expands upon the foundation content of the Human Behavior in the Social Environment courses and Practice sequences and Field Education courses. The components of bio-psycho-social-spiritual assessments and interventions are expanded to include understanding of medical concerns, physical function, medical treatment, and the socio-cultural meanings ascribed to illness. Focus also will be directed to issues such as strategies for coping with illness, self-concept, identity formation, and the impact of illness on family relationships.

SOWK 6305 Public Health and Mental Health Policy & Analysis: 3 semester hours.

Methods of clinical social work practice in health care are studied within the framework of the bio-psycho-social-spiritual perspective. This course expands upon the foundation content of the Human Behavior in the Social Environment courses and Practice sequences and Field Education courses. The components of bio-psycho-social-spiritual assessments and interventions are expanded to include understanding of medical concerns, physical function, medical treatment, and the socio-cultural meanings ascribed to illness. Focus also will be directed to issues such as strategies for coping with illness, self-concept, identity formation, and the impact of illness on family relationships.

SOWK 6306 Advanced Africentric Theory and Interventions in Healthcare: 3 semester hours.

The purpose of this course is to introduce students to the public health system and policy issues confronting public health practitioners. The course presents an overview of public health policy interventions, the theoretical motivations for undertaking them, the influence of the political, bureaucratic, and social environments in which policy decisions are made, and the population health consequences of such decisions. A key aspect of the course is to develop a framework for analyzing public health policies. Along with conceptual discussions, the course includes case studies of current public health policy issues.

SOWK 6307 Advanced Clinical Practice in Medical and Behavioral Healthcare: 3 semester hours.

The objective of this course is to introduce social work students to the direct practice of integrated behavioral health in primary care. Students will become knowledgeable of the roles of behavioral health providers working in primary care settings, theories and models of care, and cross-cultural issues. They will develop skills in engagement, assessment, intervention planning and implementation, and practice evaluation. Because the populations served in primary care settings span the spectrum of severity in both the physical and behavioral health dimensions, students will develop competencies in engaging and supporting patients across a range of health conditions.

Prerequisites: SOWK 6304.

SOWK 6309 Global Social Work and Medical and Behavioral Healthcare: 3 semester hours.

The elective course covers advanced theoretical and practical approaches to international Social Work and Medical and Behavioral Health. Particular cultures and specific global medical and behavioral health problems are examined in-depth to promote student acquisition of an international worldview for global human change based on social work values and research-informed practice.

SOWK 6310 Trauma-Informed Practice in Healthcare Settings: 3 semester hours.

This elective course examines the integration and infusion of the meaning of trauma into social work practice to recognize its prevalence, realize its impact, and respond sensitively and competently.

SOWK 6601 Social Work Practicum and Seminar III: 6 semester hours.

Building on Field Instruction I and II, this 6-credit hour course is a supervised practicum within an organization that provides clinical social work services and includes 300 clock hours of field internship.

Prerequisites: SOWK 5308 and SOWK 5351.

SOWK 6602 Social Work Practicum and Seminar IV: 6 semester hours.

Building on Field Instruction I, II, and III, this 6-credit hour course is a supervised practicum within an organization that provides clinical social work services, including 300 clock hours of internship.

Prerequisites: SOWK 5308 and SOWK 5351 and SOWK 5601.

Undergraduate

Professional Social Work Program

Purpose and Goals

The mission of the Baccalaureate Social Work (BASW) 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 (<https://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 BASW 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.

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.

Social Work, BSW

Bachelor of Social Work Degree Program Requirements

Complete Core Curriculum Listing at <https://catalog.pvamu.edu/universitycorecurriculum/>

Core Curriculum 42 Credit Hours

Communication (Select Two)	6
Mathematics (Select One)	3
Life and Physical Sciences	3
BIOL 1308 Biology for Non-Science Major I	
Life and Physical Sciences (Select One)	3
Language, Philosophy, and Culture (Select One)	3
Creative Arts (Select One)	3
American History (Select Two)	6
Government/Political Science	6
POSC 2305 American Government	
POSC 2306 Texas Government	
Social and Behavioral Sciences (Select One)	3
Component Area Option One (Select One)	3
Component Area Option Two (Select One)	3
Foreign Language Requirements (Spanish Recommended)	6
Social Work Major Requirements	
SOWK 2361 Introduction to the Field of Social Work	3
SOWK 2313 Social Work with Children and Families	3
SOWK 3311 Social Welfare Policy and Services	3
SOWK 3312 Social Welfare Policy Analysis	3
SOWK 3313 Human Behavior and the Social Environment I	3
SOWK 3314 Human Behavior and the Social Environment II	3
SOWK 3321 Human and Cultural Diversity Social Work	3
SOWK 4312 Social Work Practice I	3
SOWK 4313 Social Work Practice II	3
SOWK 4314 Social Work Research I	3
SOWK 4315 Social Work Research II	3
SOWK 4617 Field Practicum ¹	6
SOWK 4318 Integrative Seminar ¹	3
Select three of the following:	9
SOWK 2317 Multicultural Issues in Mental Health	
SOWK 3315 Social Work with At-Risk Juveniles	
SOWK 3316 Gerontological Social Work	
SOWK 4334 Generalist Crisis Intervention	
SOWK 4335 Intervention with Addicted Family	

Support Area Requirements

SOCG 1301	General Sociology	3
ECON 2302	Principles of Microeconomics	3
or		
ECON 2301	Principles of Macroeconomics	
PSYC 2301	General Psychology	3
Select one of the following:		3
MATH 1342	Elementary Statistics	
PSYC 2317	Statistical Methods in Psychology	
SOCG 4305	Social Statistics	
Unrestricted Electives		9
Total Hours		120

¹ SOWK 4617 and SOWK 4318 must be taken concurrently.

Bachelor of Social Work Degree Sequence

Core: <https://catalog.pvamu.edu/universitycorecurriculum/>

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Communication Core		3 Communication Core	3
Mathematics Core		3 American History Core	3
Life and Physical Sciences Core		3 Creative Arts Core	3
BIOL 1308		Component Area Option One Core	3
American History Core		3 PSYC 2301	3
SOCG 1301		3	
Total		15 Total	15

Total Hours: 30

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Government/Political Science		3 Government/Political Science Core	3
POSC 2305		POSC 2306	
Language, Philosophy, and Culture Core		3 SOWK 2313	3
Component Area Option Two Core		3 SPAN 1302	3
SOWK 2361		3 ECON 2301	3
SPAN 1301		3 or ECON 2302	
		Unrestricted Elective	3
Total		15 Total	15

Total Hours: 30

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
SOWK 3311		3 SOWK 3312	3
SOWK 3313		3 SOWK 3314	3
SOWK 3321		3 Social Work Elective	3
Social Work Elective		3 Life and Physical Sciences Core	3
Social and Behavioral Science Core		3	
Total		15 Total	12

Total Hours: 27

Senior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
SOWK 4312		3 SOWK 4313	3
SOWK 4314		3 SOWK 4315	3
Support Area Statistics Course		3 Social Work Elective	3
Unrestricted Elective		3 Unrestricted Elective	3
Total		12 Total	12

Total Hours: 24

Name	Unit
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Total Semester Credit Hours: 120

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

BSW Social Work

Degree Skills

1. Micro-level practice: Direct social work practice with individuals
2. Mezzo-level practice: Social work practice with families and small groups
3. Macro-level practice: Social work practice with organizations and communities for social change

Concentration Skills

1. Capability practice in areas of referrals, assessment, and interventions in client systems problem solving
2. Ability to effectively practice social work with clients and service users in a variety of context
3. Ability to make informed judgements concerning the positioning of self and others within the political and ethical contexts of social work practice

Co-curricular and Extracurricular Skills

1. Effective communication and interpersonal skills; interviewing, advocacy, listening, leadership and teamwork skills
2. Ability to empathize with clients and all others
3. Culturally competent, ability to respect clients' rights and self-determination

Graduate

Master of Social Work Program

The Master of Social Work (MSW) is a professional degree designed for individuals with a Bachelor of Social Work (BSW) degree or individuals with bachelors degrees in other disciplines. The MSW degree is designed for students who seek to advance their career trajectory through mastery of a specialized social work practice area. Graduates of the Prairie View A&M University (PVAMU) MSW program will be qualified to pursue the highly recognized Licensed Clinical Social Worker (LCSW) designation. The clinical MSW program provides training in culturally relevant evidence-based interventions, research, and theory to produce practitioners in advanced clinical social work in two specializations: (1) Medical, and (2) Behavioral Health. Graduates train to create solutions for solving various problems at the micro, mezzo, and macro level. Further, by way of the discipline's signature pedagogy, the MSW field practicum offers state-of-the-art supervised internships in hospitals, rural clinics, private practice counseling, and community-based children and family services.

The PVAMU MSW program is the only Texas program at a Historically Black College/University (HBCU). It is among just three MSW programs in Texas focusing on social work in healthcare, but the only MSW program in Texas to specifically train students for medical social work. The medical specialization gives the PVAMU MSW program a competitive edge to meet social workers' staffing demands for rapidly growing hospitals and health care systems.

The MSW aligns with its cultural history and the recent African American Studies Initiative, emphasizing that PVAMU students receive education about African American history, politics, and economics. In this case, empirically proven social work interventions to reduce physical and mental health service disparities among African-descent people. The program provides an open space for students to embrace Africentric core values of spirituality, interdependence, and collectivism. It also adopts a learning environment free from dynamics commonly experienced by minority students at other institutions (e.g., alienation, discrimination, stereotyping, etc.). PVAMU provides a place where students are accepted and challenged to grow.

Mission

The mission of the Master of Social Work Program at Prairie View A&M University is three-fold:

- 1) To prepare clinical practitioners specialized in medical and behavioral health with a focus on Africentric perspectives and diverse populations;
- 2) To improve human well-being while promoting values of human dignity, inclusiveness, diversity, equality, and economic, environmental, and social justice; and
- 3) To alleviate the effects of violence and poverty in rural and urban settings while advocating for improved social policies and services, locally and globally.

This mission statement derives from the University's commitment to excellence in teaching, research and scholarship, service, and global outreach.

Admission Requirements

Applicants to the MSW program must meet the minimum requirements as set forth by the PVAMU Office of Graduate Studies.

Applicants for the Traditional Program (Full-time or Part-time) must have:

- A bachelor's degree from an accredited university or college;
- A grade point average (GPA) of at least 2.75 (on a 4.0 scale);
- Successful completion of at least one introductory statistics course with a grade of C or better; and
- Adequate undergraduate studies in liberal arts and behavioral sciences.

Applicants for the Advanced Standing option must have:

- A BSW degree from a CSWE-accredited social work program;
- A grade point average (GPA) of at least 3.0 (on a 4.0 scale) in upper division (junior and senior) coursework; and
- A final field practicum evaluation (if currently enrolled in a BSW Programs, a mid-term Final Field Practicum Evaluation)

Social Work, MSW

Master of Social Work Degree Program Requirements

The MSW consists of 56 semester credit hours for the Traditional Program and 33 semester credit hours for Advanced Standing. PVAMU's MSW program uses an online delivery, following content and competency guidelines of CSWE accreditation standards. The MSW program curriculum is divided into two parts: the professional foundation offered during the first year and the clinical concentration offered in the second year of study for the two-year full-time and three year part-time programs. The full-time and part-time programs are designed as progressions, indicating a sequential and coherent curriculum degree plan for each option. Two-year and three-year students enrolled in the MSW Program are expected to adhere to the designated plan of study.

Traditional Program

Required Courses ¹

SOWK 5205	Social Work Research I	2
SOWK 5206	Social Work Research II	2
SOWK 5207	Diversity, Oppression, and Inclusion	2
SOWK 5215	Social Work Policy	2
SOWK 5300	Human Behavior in the Social Environment	3
SOWK 5301	Social Work Practice with Individuals and Families	3
SOWK 5302	Social Work Practice With Groups, Organizations, and Communities	3
SOWK 5308	Social Work Practicum and Seminar I	3
SOWK 5351	Social Work Practicum and Seminar II	3
SOWK 6303	Clinical Assessment & Diagnosis	3
SOWK 6304	Clinical Practice in Medical and Behavioral Healthcare	3
SOWK 6305	Public Health and Mental Health Policy & Analysis	3
SOWK 6306	Advanced Africentric Theory and Interventions in Healthcare	3
SOWK 6307	Advanced Clinical Practice in Medical and Behavioral Healthcare	3
SOWK 6601	Social Work Practicum and Seminar III	6
SOWK 6602	Social Work Practicum and Seminar IV	6

Prescribed Electives		
SOWK 6309	Global Social Work and Medical and Behavioral Healthcare	3
SOWK 6310	Trauma-Informed Practice in Healthcare Settings	3
Total Hours		56

¹ 950 Clock Hours Required for Traditional Program Internship

Advanced Standing Program

Required Courses ¹

SOWK 6303	Clinical Assessment & Diagnosis	3
SOWK 6304	Clinical Practice in Medical and Behavioral Healthcare	3
SOWK 6305	Public Health and Mental Health Policy & Analysis	3
SOWK 6306	Advanced Africentric Theory and Interventions in Healthcare	3
SOWK 6307	Advanced Clinical Practice in Medical and Behavioral Healthcare	3
SOWK 6309	Global Social Work and Medical and Behavioral Healthcare	3
SOWK 6310	Trauma-Informed Practice in Healthcare Settings	3
SOWK 6601	Social Work Practicum and Seminar III	6
SOWK 6602	Social Work Practicum and Seminar IV	6
Total Hours		33

¹ 500 Clock Hours Required for Advanced Standing Program Internship

Master of Social Work Traditional Degree Sequence

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
SOWK 5205		2 SOWK 5206	2
SOWK 5215		2 SOWK 5207	2
SOWK 5300		3 SOWK 5302	3
SOWK 5301		3 SOWK 5351	3
SOWK 5308		3 SOWK 6303	3
Total		13 Total	13

Total Hours: 26

Second Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
SOWK 6304		3 SOWK 6307	3
SOWK 6305		3 SOWK 6309	3
SOWK 6306		3 SOWK 6310	3
SOWK 6601		6 SOWK 6602	6
Total		15 Total	15

Total Hours: 30

Name	Unit
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Total Semester Credit Hours: 56

Master of Social Work Advanced Standing Program Degree Sequence

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
SOWK 6303		3 SOWK 6309	3
SOWK 6304		3 SOWK 6310	3

SOWK 6305	3 SOWK 6601	6
Total	9 Total	12

Total Hours: 21

Second Year

Fall - Semester 1

	Hours	
SOWK 6306		3
SOWK 6307		3
SOWK 6602		6
Total		12

Total Hours: 12

Name	Unit
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Total Semester Credit Hours: 33

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

MSW Social Work

Degree Skills

1. Advanced micro-level social work practice with individuals
2. Advanced mezzo-level social work practice with families and small groups
3. Advanced macro-level social work practice with organizations and communities

Concentration Skills

1. Capability to practice social work in the areas of mental health and behavioral health of clients in both urban and rural settings
2. Ability to apply medical and systems approaches to intervention needs of all client systems
3. Effectively apply advanced level social work practice knowledge in problem-solving in both generalist and specialized clients needs

Co-curricular and Extracurricular Skills

1. Interpersonal skills, behavioral health practice skills, mental health practice skills
2. Empathy skills, social justice, ability to critically assess clinical and intervention need of client systems
3. Ability to work effectively and collaboratively with other experts in the areas of medical and behavioral health as well as in the generalist area

Division of Social Sciences

Purpose and Goals

The Division of Social Sciences provides support courses for all undergraduate programs in addition to offering four undergraduate degrees and one graduate degree. The degree programs prepare students to pursue a variety of career options, including urban and regional planning, 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 programs in the Division support those seeking teacher certification through the Whitlowe R. Green College of Education.

Degree Programs

Program	Degree Offered
African American Studies	BA
History	BA
Political Science	BA
Sociology	BA, MA

Minors in the Division of Social Sciences

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 six (6) areas:

- African-American Studies
- Social Sciences
- History
- Legal Studies
- Political Science
- Philosophy
- Sociology
- Digital Storytelling

Requirements for a Minor in African-American Studies (18 SCH)

The African-American Studies minor is an interdisciplinary course of study that provides students the opportunity to gain knowledge and understanding of the African-American influence on the social, political, cultural, and intellectual development of this country. Courses may not be used to satisfy multiple academic requirements such as core curriculum requirements, or other major and minor requirements. Students should consult the African-American Studies Program Coordinator in selecting appropriate elective courses.

Required Courses

AFAM 1301	Race Class and Gender in America	3
HIST 2381	African-American History	3
AFAM 4301	Seminar in African American Studies	3

Select three (3) classes from the list below: 9

AFAM 2302	Introduction to Research Methods and Writing in African American Studies	
AFAM 4302	Internship in Public History	
AFAM 4331	Special Topics in African American Studies	
ARTS 2328	African American Art	
CRIJ 3393	Minorities and the Criminal Justice System	
DRAM 2322	African American Theatre II	
ENGL 3305	Survey of African-American Literature	
ENGL 3306	Studies in African-American Literature	
HIST 3350	American Chattel Slavery	
HIST 3375	African Diaspora	
HIST 4381	African-American Hist to 1876	
HIST 4382	African-Amer Hist Since 1876	
HDFM 2355	Human Development: Life Span	
MUSC 2333	Afro-American Music	
POSC 2321	Blacks and the American Political System	
POSC 3341	Gandhi and King	
POSC 3355	African Politics	
POSC 4324	Race, Gender and Public Policy	
SOCG 2319	Sociology of Minorities	
SOCG 2302	Black Families	

Total Hours

18

Requirements for a Minor in Social Sciences (18 SCH)

The Division offers an interdisciplinary minor in Social Sciences that provides a sound understanding of the basic concepts, assumptions, research methods, and techniques used in the various disciplines that comprise the social sciences. The History Program administers the minor and students are advised to consult with the History Program Coordinator in selecting appropriate courses that support their career objectives. Courses may not be used to satisfy multiple academic requirements such as core curriculum requirements, major, or other minor requirements. Any combination of 18 semester credit hours with no more than six hours in any one discipline will constitute an interdisciplinary social science minor. Courses from the following disciplines may be used to fulfill the minor requirements: African-American Studies (AFAM), Criminal Justice (CRJS), Economics (ECON),

Geography (GEOG), History (HIST), Political Sciences (POSC), Psychology (PSYC), and Sociology (SOCG). Other disciplines related to the Social Sciences may also be considered for substitution with the approval of the History Program Coordinator and the Division Head.

Requirements for a Minor in History (18 SCH)

Required Courses

HIST 2321	World Civilizations I	3
HIST 2322	World Civilizations II	3
HIST 2300	Intro to Historical Methods	3
Three (3) History courses, 2000 level or higher		9
Total Hours		18

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 requirements, major, or other minor requirements.

Required Courses

POSC 2314	Legal Studies	3
PHIL 2303	Critical Thinking	3

Select four (4) courses from the following list but no more than 6 SCH from any one discipline: 12

BLAW 2301	Legal Environment of Business	
BLAW 2321	Business Law	
BLAW 2324	Law of Agency	
BLAW 2334	Law of Contracts	
COMM 3351	Communication Law & Ethics	
CONS 4363	Construction Law and Ethics	
CRIJ 1301	Introduction to Criminal Justice	
CRIJ 1306	Court Systems and Practices	
CRIJ 2323	Criminal Procedure	
CRIJ 2366	Evidence Law	
CRIJ 2374	Law of Juvenile Justice	
CRIJ 3362	Criminal Law	
CRIJ 4365	Constitutional Rights of the Criminally Accused	
ENGL 3307	Writing for Legal Professions	
HLTH 4305	Health Law and Ethics	
PHIL 2306	Ethics	
PHIL 3305	Philosophy of Law	
POSC 3314	Election Law and Voting Rights	
POSC 4311	American Constitutional Law	
POSC 4320	Judicial Politics	
PSYC 3372	Psychology and Law	
SOCG 3302	Correctional Treatment and Public Policy	
SOCG 3308	Sociology of Probation and Parole	

Total Hours 18

Requirements for a Minor in Political Science (18 SCH)

Required Courses

POSC 2304	Introduction to Political Science	3
POSC 2341	Scope and Methods in Political Science	3
Four (4) Political Science courses, 2000 level or higher		12

Total Hours 18

Requirements for a Minor in Philosophy (18 SCH)

Required Courses		6
PHIL 2306	Ethics	
PHIL 2303	Critical Thinking	
Select four (4) courses from the following list:		12
PHIL 2307	African American Philosophy	
PHIL 2309	Ethics of Cybersecurity	
PHIL 3304	Philosophy of Science	
PHIL 3305	Philosophy of Law	
PHIL 3306	Bioethics	
PHIL 3307	Environmental Ethics	
PHIL 3308	Global Social Justice and Ethics	
Total Hours		18

Requirements for a Minor in Sociology (18 SCH)

Required Courses		
SOCG 1301	General Sociology	3
SOCG 4373	Sociological Theory	3
Four (4) Sociology courses, 2000 level or higher.		12
Total Hours		18

Requirements for a Minor in Digital Storytelling (18 SCH)

Required Courses		
HIST 2300 or HIST 3301	Intro to Historical Methods ¹ Introduction to Public History	3
HIST 3330	Introduction to Digital Storytelling	3
GEOG 2311	Introduction to Geographic Information System	3
HIST 3331	Podcasting Oral Histories	3
Select one (1) course from the list below to satisfy History elective requirement:		3
HIST 2301	Texas History	
HIST 2320	Military History	
HIST 2381	African-American History	
HIST 2383	History of HBCUs	
HIST 3301	Introduction to Public History	
HIST 3322	Women in History	
HIST 3332	Contemporary United States	
HIST 3353	Civil Rights Movement	
HIST 3361	Colonial Latin Amer & Carrib	
Select one (1) course from the list below to satisfy non-History elective requirement:		3
ENGL 2307	Introduction to Creative Writing	
ENGL 2314	Advanced Composition	
COMM 1336	Video Production I	
COMM 2303	Digital Audio Production I	
COMM 3304	Digital Audio Production II	
COMM 3321	Media Management	
DGMA 2317	Fundamentals of Digital Imaging	
DGMA 2318	Fundamentals of Interactive Media	
GNST 2301	Coding and App Development (Basics)	
GNST 3302	iOS App Development	
Total Hours		18

¹ History majors are required to take HIST 3301.

Honor Societies, Clubs, and Service Organizations

The *WEB Dubois Historical Society* is open to all students who have an interest in the scholarship of WEB Dubois and the preservation of the black experience. Each semester, members develop and participate in lectures that highlight current events and the impact of those events on the black community.

Membership in *Phi Alpha Theta International Honor Society*, the national History Honor Society, is open to undergraduate students who have completed 12 semester hours of history with a grade point average of a 3.10 GPA or higher in all 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 policymaking 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 *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.

African American Studies Courses

AFAM 1301 Race Class and Gender in America: 3 semester hours.

This survey-based course examines the theoretical and historical impact of race, gender, and class in American society.

AFAM 2302 Introduction to Research Methods and Writing in African American Studies: 3 semester hours.

This course serves as an introduction to research methods and techniques of research writing. The course will focus on issues such as identifying research topics, evaluating academic sources and the documentation of sources.

AFAM 4301 Seminar in African American Studies: 3 semester hours.

The course allows students explore some of the themes and issues in previous coursework in greater depth. Students also rely on conceptual and operational methods to research and write about the experiences of African Americans.

Prerequisites: AFAM 2302 and HIST 3301.

AFAM 4302 Internship in Public History: 3 semester hours.

This course offers students an opportunity to undertake a supervised internship with an organization or institutions dedicated to public presentation of the past. Internships can take places at historic sites, government agencies, nonprofit organizations, advocacy groups, house museums, research libraries, and archives that engage in heritage interpretation, preservation and research.

Prerequisites: AFAM 2302 and HIST 3301.

AFAM 4331 Special Topics in African American Studies: 3 semester hours.

This course will focus on specific topics, trends, new directions, and issues in African American Studies that the professor deems appropriate and/or meets students' interests. Special topics courses will broadly engage major themes such as: race, class, gender, justice, art and cultural production, and power. This course may be repeated for credit when topics vary.

Geography Courses

GEOG 1302 Introduction to Human 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 1303 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.

GEOG 2311 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. Cross-Listed Course: CRIJ 2311.

History Courses

HIST 1301 United States History I: 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.

HIST 1302 United States History II: 3 semester hours.

Surveys modern American development: the industrial nation and its problems; expansionist and muckraker; the First Crusade, Normalcy and Reaction, Depression, and the New Deal; and the Second World War and after. Lectures, special readings, discussion, supervised study, and tests.

HIST 2300 Intro to Historical Methods: 3 semester hours.

This course is designed to introduce students to the historical profession, with emphasis on research methods, historical analysis and writing, and career paths for historians.

HIST 2301 Texas History: 3 semester hours.

Survey of Texas starting from Spanish colonization to the present. Emphasis will be placed on contributions made to the state of Texas by various ethnic groups.

HIST 2320 Military History: 3 semester hours.

Military History - Past Wars, conflicts and study of war heroes.

HIST 2321 World Civilizations I: 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 2322 World Civilizations II: 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 modern national-states, and colonialism and post colonialism.

HIST 2381 African-American History: 3 semester hours.

Introduction to the history of persons of African descent on the North American continent from the settlement of Jamestown to present. Integral to students' exposure to African-American History will be their exposure to basic research methods and writing techniques. Students should be prepared to examine major issues and historical events including, but not limited to: the Trans-Atlantic Slave Trade, the black presence in Colonial America, the development of chattel slavery, Abolitionism, Emancipation, Jim Crow, the Nadir, the Great Migration, the Harlem Renaissance, the Civil Rights Movement, and Black Power Era.

HIST 2383 History of HBCUs: 3 semester hours.

This course is an in-depth history of Historically Black Colleges and Universities (HBCUs), to include present and future roles, student activism, civil rights, the Black Power Movement, Black Studies, and intellectual and cultural traditions.

HIST 3301 Introduction to Public History: 3 semester hours.

An introduction to the role of historical memory in shaping our understanding of the past through examining the history of museums, archives, and historical research centers. Students will be introduced to the practices, theories and various sectors of public history, and will utilize an interdisciplinary approach in documenting, preserving and curating history.

HIST 3315 Ancient Egypt & the Near East: 3 semester hours.

An advanced survey of the civilizations of ancient Egypt and the Near East(Middle East). Students will read primary sources in translation and analyze the developments and interactions of ancient Assyrian, Babylonian, Egyptian, Hebrew, Hittite, Persian, and Sumerian civilizations.

HIST 3316 Ancient Greece: 3 semester hours.

An advanced survey of ancient Greece, tracing the developments of the cultural, political, intellectual, and artistic achievements of Greek civilization from the Bronze Age through the conquest of Macedonia. Students will read primary sources in translation and analyze important Greek personalities and events, as well as methods and problems of historical interpretation.

HIST 3317 Ancient Rome: 3 semester hours.

An advanced survey of ancient Rome, tracing the developments of the cultural, political, intellectual, and artistic achievements of Roman civilization from the foundation of the City, through Kingdom, Republic, and Empire, to the fifth century A.D. Students will read primary sources in translation and analyze important Roman personalities and events as well as methods and problems of of historical interpretation.

HIST 3318 Medieval Europe: 3 semester hours.

An advanced survey of political, social, economic, and cultural developments of European civilizations from the end of the Roman Empire to the dawn of the fifteenth-century Renaissance. Students will read primary courses in translation and analyze medieval personalities and events, as well as methods and problems of historical interpretation.

HIST 3322 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 3330 Introduction to Digital Storytelling: 3 semester hours.

An introduction to the fundamental aspects of narrative in digital environments as well as digital humanities. Students will learn to identify common elements of digital stories and analyze how scholars use digital tools and platforms to develop narratives. Students will also receive hands-on introduction to a range of digital storytelling tools.

Prerequisites: HIST 1301 or HIST 1313 or HIST 1302 or HIST 1323.

HIST 3331 Podcasting Oral Histories: 3 semester hours.

An exploration of the intersection between digital storytelling and oral tradition. Students will curate and contextualize historical narratives using digital audio. Through practical skills development and discussions, they will learn the responsible practice of conducting interviews and producing podcasts. By giving students the tools and knowledge to breathe life into oral histories, this course empowers them to share the diverse voices and stories that shape our collective past with a global audience.

Prerequisites: HIST 1301 or HIST 1302 or HIST 1323 or HIST 1313.

HIST 3332 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 3350 American Chattel Slavery: 3 semester hours.

This course examines the development of slavery in the making of American society, and particularly the American South, from the early colonial period through Reconstruction. Attention will be given to the following topics: the Atlantic origins of slavery; the emergence of colonial plantation societies; the development of a distinct slave society within the plantation; and the causes and consequences of secession (Civil War and Reconstruction). Finally, we will consider Southern life in the aftermath of emancipation and the establishment of Jim Crow racial segregation in the revival of antebellum racial ideologies.

HIST 3351 Global Black Power: 3 semester hours.

This course examines the history of the Black Power Movement in the 20th century, with special emphasis on the international and transnational exchanges of ideas and strategies to overthrow white supremacy. Students will explore not just the Movement within the United States, but also within African liberation movements, Caribbean revolts, anti-caste agitation in India, and indigenous protests in New Zealand and Australia.

Prerequisites: (HIST 1301 or HIST 1313 and (HIST 1302 or HIST 1323)) or HIST 2301 or HIST 1333 and (HIST 2300 or HIST 2003).

HIST 3353 Civil Rights Movement: 3 semester hours.

This course focuses on America's Second Reconstruction, The Civil Rights Movement that ran throughout the entirety of the twentieth century. Students will engage materials that highlight the impact that the Civil Rights Movement had on the citizenship status of African-Americans. Major historical events and individuals covered include, but are not limited to: The Great Migration, the founding of the NAACP, Charles Hamilton Houston, ASA Philip Randolph, the March on Washington Movement, the Civil Rights Movement, Charles Hamilton Houston, Thurgood Marshall, Bayard Rustin, Martin Luther King, Jr., Linda Brown, Malcolm X, the Murder of Emmett Louis Till, Jackie Robinson, The Black Panther Party for Self-Defense, The Rise of Black Power, Affirmative Action, the rise of the Prison Industrial Complex, and the election of Barack Hussein Obama.

HIST 3360 Atlantic World: 3 semester hours.

This course analyzes the exploration/colonization of the Atlantic Basin, the genesis of slave societies in the Western Hemisphere, and the social, political, and economic legacies of colonial regimes in the Americas and along the western coast of Africa from 1400 to 1900. This course utilizes power, gender, race, and class as categories of analysis to bring light to understanding this region.

HIST 3361 Colonial Latin Amer & Carrib: 3 semester hours.

An advanced survey of Latin American and Caribbean histories and cultures. Special emphasis on colonization, slavery, and emancipation and independence movements particularly in connection to contemporary social, economic, and political issues impacting the region. Utilizing an interdisciplinary approach, the art, music, geography and literature of the regions will also be explored.

HIST 3370 Pre-Colonial Africa: 3 semester hours.

Study of African history before the arrival of the Europeans that 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 3371 Post-Colonial African History: 3 semester hours.***HIST 3375 African Diaspora: 3 semester hours.***

Introduction to the people of African descent. Students will explore origins on the continent of Africa, the places blacks were dispersed to as a result of the slave trade, emancipation movements across the globe, and the movements for black equality around the world. The course also examines the musical, artistic, literary, and cultural contributions of people of African descent.

HIST 3399 Independent Study: 1-3 semester hour.

Readings, research, and/or field work on selected topics.

HIST 4195 TExES Prep-Hist/Soc Studies: 1 semester hour.

This course is designed to help students prepare to take the Texas Examination of Educator Standards (TExES) in History/Social Studies. This course is typically taken the semester before Student Teaching, or during the senior year for those who are doing alternative certification.

HIST 4305 Early Christianity: 3 semester hours.

An exploration of early Christianity from its emergence within Second-Temple Judaism to its spread and influence within the Roman world to the fourth century AD. Students will read primary sources in translation and analyze the development of the Church as an institution and community, issues of Christian doctrine and discipline, as well as methods and problems of historical interpretation.

HIST 4344 Special Topics: 3 semester hours.

This course will focus on specific historical topics that the professor deems appropriate and student's desire. May be repeated for credit when topics vary.

HIST 4381 African-American Hist to 1876: 3 semester hours.

Intensive readings in a broad range of texts that form the foundation of the African-American historical experience. Students will deal with readings that cover an expansive time frame ranging from the colonization of Africa through the ending of the American Reconstruction. This course will provide students an opportunity to read seminal texts by scholars who have written about the African-American experience. Major issues and historical figures covered: the colonization of Africa, the Trans-Atlantic Slave Trade, American chattel slavery, Black Abolitionism, Frederick Douglass, Nat Turner, Linda Brent, Harriet Tubman, Sojourner Truth, the Underground Railroad, Emancipation, and the Reconstruction era.

HIST 4382 African-Amer Hist Since 1876: 3 semester hours.

Intensive readings in a broad range of texts that form the foundation of the African-American historical experience during the modern period. Students will deal with readings covering a period that extends from the Nadir through contemporary America. This course will provide students an opportunity to read seminal texts by scholars who have written about the post-slavery African-American experience. Major issues and historical figures covered include, but are not limited to: the Nadir, Booker T. Washington, W.E.B. DuBois, The Great Migration, The Harlem Renaissance, the March on Washington Movement, the Civil Rights Movement, the Murder of Emmett Louis Till, Malcolm X, the Rev. Dr. Martin Luther King, Jr., the Black Panther Party for Self-Defense, the decline of Urban America, the rise of the Prison Industrial Complex, and the election of Barack Hussein Obama.

HIST 4383 Malcolm X and the Nation of Islam: 3 semester hours.

An advanced survey of the historical events of the life, assignment, and impact of Malcolm X (Omwale) both within The Nation (NOI) and in the nation (USA). This will include his upbringing, family, the rise of Garveyism and the UNIA, the influence of Elijah Muhammad and the growth of the NOI (Nation of Islam), Civil Rights and Black Power Movements.

HIST 4390 Senior Seminar: 3 semester hours.

Advanced training in historical methods and historiography designed to measure student's understanding and mastery of the discipline.

HIST 4394 History and Social Studies Methods: 3 semester hours.

This course focuses on 1) the mastery of historical facts related to US, world, and Texas histories, 2) understanding the various teaching methods used in the social studies classroom, and 3) the development of lesson plans for the EC – 6, and 4-8 Social Studies classrooms. The student will also be introduced to the social studies standards of the Texas Essential Knowledge and Skills (TEKS) for licensure in Texas public schools.

Prerequisites: (HIST 1301 or HIST 1313 and (HIST 1302 or HIST 1323)) or HIST 2301 or HIST 1333 or POSC 2305 or POSC 1113 or POSC 2306 or POSC 1123.

HIST 4399 Independent Study: 3 semester hours.

Readings, research, and/or field work on selected topics.

Philosophy Courses

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 or ENGL 1301.

PHIL 2306 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 or ENGL 1301.

PHIL 2307 African American Philosophy: 3 semester hours.

This course is a survey of the philosophical writings of some of the most important African American thinkers from the nineteenth to twenty-first century. Its aim is to gain familiarity with the works of influential African American philosophers while also learning to engage critically and responsibly with philosophical texts.

Prerequisites: ENGL 1123 or ENGL 1301.

PHIL 2309 Ethics of Cybersecurity: 3 semester hours.

This course provides a comprehensive examination of ethics as applied to the field of cybersecurity. Students will learn ethical frameworks and principles that they will apply to diverse issues within and related to cybersecurity. Specific topics to which ethical tools will be applied include but are not limited to value conflicts in cybersecurity systems, especially between system administrators and users; privacy, censorship, and filtering; intellectual property rights and digital rights management; special issues concerning the Internet of Things (IoT); accessibility and social justice. Special emphasis will be placed on issues of social justice pertaining to race, gender, ability, and socio-economic variables.

PHIL 3304 Philosophy of Science: 3 semester hours.

This course will introduce and explore conceptual, methodological, and epistemological issues about science: concept formation, explanation, prediction, confirmation, and theory construction; the status of unobservable; metaphysical presuppositions and implications of science; semantics of scientific language; illustrations from special sciences.

Prerequisites: ENGL 1123 or ENGL 1301 and (PHIL 2303).

PHIL 3305 Philosophy of Law: 3 semester hours.

Examination of the main fields of law, including criminal law, torts, constitutional law, contracts, property law, jurisprudence and international law. The focus will be on the underlying philosophical, moral and jurisprudential rationales for these; and classic texts and landmark cases will be read, to illuminate these fields. Students will also acquire legal reasoning and critical thinking skills, to help them distinguish stronger from weaker legal arguments and rulings.

Prerequisites: ENGL 1123 or ENGL 1301 and (PHIL 2023 or PHIL 2306).

PHIL 3306 Bioethics: 3 semester hours.

Provides grounding in basic theories, principles, and historical cases concerning bioethics.

Prerequisites: ENGL 1123 or ENGL 1301 and (PHIL 2023 or PHIL 2306).

PHIL 3307 Environmental Ethics: 3 semester hours.

This course is an interdisciplinary examination and assessment of the leading global thesis on environmental ethics, climate change, and sustainability. The aim of the course is to gain familiarity with contemporary global environmental issues while also learning to engage critically and responsibly with arguments concerning ethical action and environmental policy.

Prerequisites: PHIL 2023 or PHIL 2306.

PHIL 3308 Global Social Justice and Ethics: 3 semester hours.

This course is an interdisciplinary examination and assessment of the leading global theories on human rights, social justice, and ethics. The aim of the course is to gain familiarity with contemporary global challenges while also learning to engage critically and responsibly with arguments concerning ethical action and policy to address them.

Prerequisites: PHIL 2023 or PHIL 2306.

Political Science Courses

POSC 2304 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 2305 or POSC 1113 and (POSC 2306 or POSC 1123).

POSC 2305 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 2306 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 2311 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 2312 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 2314 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 2321 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 2341 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 2342 Data Analysis in Political Science: 3 semester hours.

The course covers the use of software applications and statistical procedures used to analyze data in the study of political science.

Prerequisites: POSC 2304 or POSC 2133.

POSC 2350 Global Issues: 3 semester hours.

Critical evaluation of selected current issues and problems in world politics facing the global community, such as war, terrorism,, the environment , hunger, energy, population, migration, human rights , and trade.

POSC 2353 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 2354 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 3312 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.

POSC 3314 Election Law and Voting Rights: 3 semester hours.

A thorough examination of election laws at the federal, state, and local levels and how they guide the conduct of elections by officials and voters alike.

POSC 3321 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.

POSC 3331 Political 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 2305 or POSC 1113 and (POSC 2306 or POSC 1123).

POSC 3341 Gandhi and King: 3 semester hours.

Historical examination of Gandhian and Kingian nonviolent political resistance in the context of the Indian independence movement and the American civil rights movement.

Prerequisites: POSC 2305 or POSC 1113 and (HIST 1302 or HIST 1323).

POSC 3342 Political Resistance and Social Change: 3 semester hours.

Examines instances in which ordinary citizens forge ways to address the political system when "normal" channels are unavailable to them. Investigates social movements and how ordinarily quiescent masses attempt to impact the political process.

POSC 3351 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.

POSC 3353 U.S. Foreign Policy: 3 semester hours.

This is a study of the American foreign policy, including the objectives, capabilities and formulation process.

POSC 3354 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.

POSC 3355 African Politics: 3 semester hours.

Explores the political history and development of African states.

POSC 3359 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 3399 Independent Study: 1-3 semester hour.

Readings, research, and/or field-work on selected topics. Prerequisite: consent of advisor.

POSC 4310 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.

POSC 4311 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 2305 or POSC 1113 and (POSC 2306 or POSC 1123).

POSC 4313 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.

POSC 4314 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.

POSC 4319 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.

POSC 4320 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 4321 Seminar in Political Science: 3 semester hours.

This course is devoted to intensive reading, writing, research, and discussion focusing on selected topics.

POSC 4324 Race, Gender and Public Policy: 3 semester hours.

Examines how racial and gender groups, broadly defined, both influence and are influenced by, American public policy.

Prerequisites: POSC 2305 or POSC 1113.

POSC 4399 Independent Study: 3 semester hours.

Readings, research, and/or field-work on selected topics. Prerequisite: consent of advisor.

POSC 4615 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 onsite intern supervisor.

Sociology Courses

SOCG 1301 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 1306 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 2301 Sociology of Marriage and Family: 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 2302 Black Families: 3 semester hours.

Students will be introduced to the diverse institutional, cultural, and historical issues relating to the past and present life circumstances of Black American families. Some comparisons will be made with families in Africa and the Diaspora.

SOCG 2306 Gender and Sexuality: 3 semester hours.

An exploration of how socializing agents such as the family, media, sports, school, work and religion aid in the development of gender roles, gender identity and gender inequality.

SOCG 2319 Sociology of Minorities: 3 semester hours.

Sociological study of traditional minorities (race, ethnicity, and religion) and new minorities (gender, sexual orientation and disability).

SOCG 2326 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 3300 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 1314 or MATH 1332 or MATH 1113 or MATH 1103.

SOCG 3301 Urban and Rural 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 3303 Social Inequality: 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 3305 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 3306 Sociology of Drug Use and Abuse: 3 semester hours.

Historical and contemporary analysis of patterns of use and abuse of legal and non-legal drugs in the U.S. and other parts of the world. Social-psychological impact of abuse, dependence, and addiction. Evaluation of consequences and treatment.

SOCG 3307 Conformity, Deviance, and Identity: 3 semester hours.

Analyzes social conformity, societal sanctions, and social control in relationship to the Sociological study of deviance, and identity. Applies theoretical explanations of deviance and identity to explore the intersection of social control, race/ethnicity, social class, and gender.

SOCG 3310 Sociological Research Methods: 3 semester hours.

Introduction to methods of sociological research including experiments, survey research, secondary analysis, and observation.

SOCG 3315 African American Urban Life: 3 semester hours.

This course examines African Americans as agents in shaping the urban experience in the United States. Examples will be drawn from communities such as Harlem, NY, the Central Avenue districts of Los Angeles, Chicago's south Side and the Auburn Avenue districts of Atlanta, as well as others. Prerequisites: SOCG 1013 or SOCG 1301.

SOCG 3320 Sociological Theory: 3 semester hours.

Critical survey of major sociological theories from classical to contemporary schools of thought.

SOCG 3322 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.

SOCG 4301 Religions in the African Diaspora: 3 semester hours.

Examines the historical progression of traditional African spirituality and cultures across various regions beyond Africa; and historical trends that have shaped the repression of African Diasporic religious life within its social context. Topics within the course will include the following: religious syncretism, black theology, black secularism, freedom movements, repatriation and the role of religious institutions in containing civil society.

SOCG 4302 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.

SOCG 4303 Introduction to Black Sociology: 3 semester hours.

A survey of theoretical paradigms and social structures and their impact on primarily black people with generalization to broader human behavior.

SOCG 4304 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.

SOCG 4307 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.

SOCG 4309 Race Relations: 3 semester hours.

Wide range explorations 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 4310 Sociology of Entrepreneurship: 3 semester hours.

This course takes a sociological approach to explore entrepreneurship and organizations at various from levels of analysis. This course examines concepts of organizational structure, capital including human, cultural, and financial; the navigation of legitimacy, uncertainty and risk; as well as the role of race, class, gender, discrimination, and racism within organizations.

SOCG 4314 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.

SOCG 4315 Clinical and Applied Sociology: 3 semester hours.

Applies sociology concepts, theory, and methods to analyze and engage challenges facing business, government, non-governmental organizations, and groups. Students will apply a sociological approach to research, identify social problems, and propose solutions in hands-on projects to local community organizations and business to propose solutions.

Prerequisites: SOCG 3310.

SOCG 4376 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.

SOCG 4378 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.

SOCG 4399 Independent Study: 3 semester hours.

Readings, research, and/or field work on selected topics.

SOCG 5312 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.

SOCG 5321 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.

SOCG 5322 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 5324 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 5326 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 5328 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 Crime and Society: 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 5335 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 5341 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 5321 or SOCG 5213.

SOCG 5342 Social Inequality: 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 5344 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 5345 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 5346 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 5352 Black Family: 3 semester hours.

This course is designed to explore the Black family from a number of different perspectives. We will research and discuss how institutions affect family structure, relationships, socioeconomic conditions, health and other factors. Different theoretical frameworks will be used to explain the historical and contemporary status and experiences of Black families in the United States.

SOCG 5355 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 5361 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 5362 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 5321 or SOCG 5213.

SOCG 5372 Black Sociology: 3 semester hours.

Examines the contributions of black sociological theorists, public intellectuals, and methodologists including but not limited to selected topics such as Black Marxism, the Atlanta Laboratory School, Postcolonial Studies, Black Feminism, and Critical Race Theory providing the foundation for contemporary theory.

SOCG 5382 Graduate Capstone: 3 semester hours.

Serves as the culminating experience for non-thesis MA students. This course will allow graduate students to develop writing and presentation skills, and integrate past learning.

SOCG 5383 Media Studies: 3 semester hours.

Explores how various avenues of the media impact human behavior with a focus on theory and themes such as: race, gender, class, culture, technology and globalization.

SOCG 5384 Urban Field Research: 3 semester hours.

The course is designed to provide theoretical foundations for and guided practical experience in conducting field research in urban settings.

SOCG 5399 Independent Study: 3 semester hours.

Readings, research, and/or field work on selected topics.

African American Studies Courses

AFAM 1301 Race Class and Gender in America: 3 semester hours.

This survey-based course examines the theoretical and historical impact of race, gender, and class in American society.

AFAM 2302 Introduction to Research Methods and Writing in African American Studies: 3 semester hours.

This course serves as an introduction to research methods and techniques of research writing. The course will focus on issues such as identifying research topics, evaluating academic sources and the documentation of sources.

AFAM 4301 Seminar in African American Studies: 3 semester hours.

The course allows students explore some of the themes and issues in previous coursework in greater depth. Students also rely on conceptual and operational methods to research and write about the experiences of African Americans.

Prerequisites: AFAM 2302 and HIST 3301.

AFAM 4302 Internship in Public History: 3 semester hours.

This course offers students an opportunity to undertake a supervised internship with an organization or institutions dedicated to public presentation of the past. Internships can take places at historic sites, government agencies, nonprofit organizations, advocacy groups, house museums, research libraries, and archives that engage in heritage interpretation, preservation and research.

Prerequisites: AFAM 2302 and HIST 3301.

AFAM 4331 Special Topics in African American Studies: 3 semester hours.

This course will focus on specific topics, trends, new directions, and issues in African American Studies that the professor deems appropriate and/or meets students' interests. Special topics courses will broadly engage major themes such as: race, class, gender, justice, art and cultural production, and power. This course may be repeated for credit when topics vary.

Geography Courses

GEOG 1302 Introduction to Human 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 1303 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.

GEOG 2311 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. Cross-Listed Course: CRIJ 2311.

History Courses

HIST 1301 United States History I: 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.

HIST 1302 United States History II: 3 semester hours.

Surveys modern American development: the industrial nation and its problems; expansionist and muckraker; the First Crusade, Normalcy and Reaction, Depression, and the New Deal; and the Second World War and after. Lectures, special readings, discussion, supervised study, and tests.

HIST 2300 Intro to Historical Methods: 3 semester hours.

This course is designed to introduce students to the historical profession, with emphasis on research methods, historical analysis and writing, and career paths for historians.

HIST 2301 Texas History: 3 semester hours.

Survey of Texas starting from Spanish colonization to the present. Emphasis will be placed on contributions made to the state of Texas by various ethnic groups.

HIST 2320 Military History: 3 semester hours.

Military History - Past Wars, conflicts and study of war heroes.

HIST 2321 World Civilizations I: 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 2322 World Civilizations II: 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 modern national-states, and colonialism and post colonialism.

HIST 2381 African-American History: 3 semester hours.

Introduction to the history of persons of African descent on the North American continent from the settlement of Jamestown to present. Integral to students' exposure to African-American History will be their exposure to basic research methods and writing techniques. Students should be prepared to examine major issues and historical events including, but not limited to: the Trans-Atlantic Slave Trade, the black presence in Colonial America, the development of chattel slavery, Abolitionism, Emancipation, Jim Crow, the Nadir, the Great Migration, the Harlem Renaissance, the Civil Rights Movement, and Black Power Era.

HIST 2383 History of HBCUs: 3 semester hours.

This course is an in-depth history of Historically Black Colleges and Universities (HBCUs), to include present and future roles, student activism, civil rights, the Black Power Movement, Black Studies, and intellectual and cultural traditions.

HIST 3301 Introduction to Public History: 3 semester hours.

An introduction to the role of historical memory in shaping our understanding of the past through examining the history of museums, archives, and historical research centers. Students will be introduced to the practices, theories and various sectors of public history, and will utilize an interdisciplinary approach in documenting, preserving and curating history.

HIST 3315 Ancient Egypt & the Near East: 3 semester hours.

An advanced survey of the civilizations of ancient Egypt and the Near East(Middle East). Students will read primary sources in translation and analyze the developments and interactions of ancient Assyrian, Babylonian, Egyptian, Hebrew, Hittite, Persian, and Sumerian civilizations.

HIST 3316 Ancient Greece: 3 semester hours.

An advanced survey of ancient Greece, tracing the developments of the cultural, political, intellectual, and artistic achievements of Greek civilization from the Bronze Age through the conquest of Macedonia. Students will read primary sources in translation and analyze important Greek personalities and events, as well as methods and problems of historical interpretation.

HIST 3317 Ancient Rome: 3 semester hours.

An advanced survey of ancient Rome, tracing the developments of the cultural, political, intellectual, and artistic achievements of Roman civilization from the foundation of the City, through Kingdom, Republic, and Empire, to the fifth century A.D. Students will read primary sources in translation and analyze important Roman personalities and events as well as methods and problems of of historical interpretation.

HIST 3318 Medieval Europe: 3 semester hours.

An advanced survey of political, social, economic, and cultural developments of European civilizations from the end of the Roman Empire to the dawn of the fifteenth-century Renaissance. Students will read primary courses in translation and analyze medieval personalities and events, as well as methods and problems of historical interpretation.

HIST 3322 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 3330 Introduction to Digital Storytelling: 3 semester hours.

An introduction to the fundamental aspects of narrative in digital environments as well as digital humanities. Students will learn to identify common elements of digital stories and analyze how scholars use digital tools and platforms to develop narratives. Students will also receive hands-on introduction to a range of digital storytelling tools.

Prerequisites: HIST 1301 or HIST 1313 or HIST 1302 or HIST 1323.

HIST 3331 Podcasting Oral Histories: 3 semester hours.

An exploration of the intersection between digital storytelling and oral tradition. Students will curate and contextualize historical narratives using digital audio. Through practical skills development and discussions, they will learn the responsible practice of conducting interviews and producing podcasts. By giving students the tools and knowledge to breathe life into oral histories, this course empowers them to share the diverse voices and stories that shape our collective past with a global audience.

Prerequisites: HIST 1301 or HIST 1302 or HIST 1323 or HIST 1313.

HIST 3332 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 3350 American Chattel Slavery: 3 semester hours.

This course examines the development of slavery in the making of American society, and particularly the American South, from the early colonial period through Reconstruction. Attention will be given to the following topics: the Atlantic origins of slavery; the emergence of colonial plantation societies; the development of a distinct slave society within the plantation; and the causes and consequences of secession (Civil War and Reconstruction). Finally, we will consider Southern life in the aftermath of emancipation and the establishment of Jim Crow racial segregation in the revival of antebellum racial ideologies.

HIST 3351 Global Black Power: 3 semester hours.

This course examines the history of the Black Power Movement in the 20th century, with special emphasis on the international and transnational exchanges of ideas and strategies to overthrow white supremacy. Students will explore not just the Movement within the United States, but also within African liberation movements, Caribbean revolts, anti-caste agitation in India, and indigenous protests in New Zealand and Australia.

Prerequisites: (HIST 1301 or HIST 1313 and (HIST 1302 or HIST 1323)) or HIST 2301 or HIST 1333 and (HIST 2300 or HIST 2003).

HIST 3353 Civil Rights Movement: 3 semester hours.

This course focuses on America's Second Reconstruction, The Civil Rights Movement that ran throughout the entirety of the twentieth century. Students will engage materials that highlight the impact that the Civil Rights Movement had on the citizenship status of African-Americans. Major historical events and individuals covered include, but are not limited to: The Great Migration, the founding of the NAACP, Charles Hamilton Houston, ASA Philip Randolph, the March on Washington Movement, the Civil Rights Movement, Charles Hamilton Houston, Thurgood Marshall, Bayard Rustin, Martin Luther King, Jr., Linda Brown, Malcolm X, the Murder of Emmett Louis Till, Jackie Robinson, The Black Panther Party for Self-Defense, The Rise of Black Power, Affirmative Action, the rise of the Prison Industrial Complex, and the election of Barack Hussein Obama.

HIST 3360 Atlantic World: 3 semester hours.

This course analyzes the exploration/colonization of the Atlantic Basin, the genesis of slave societies in the Western Hemisphere, and the social, political, and economic legacies of colonial regimes in the Americas and along the western coast of Africa from 1400 to 1900. This course utilizes power, gender, race, and class as categories of analysis to bring light to understanding this region.

HIST 3361 Colonial Latin Amer & Carrib: 3 semester hours.

An advanced survey of Latin American and Caribbean histories and cultures. Special emphasis on colonization, slavery, and emancipation and independence movements particularly in connection to contemporary social, economic, and political issues impacting the region. Utilizing an interdisciplinary approach, the art, music, geography and literature of the regions will also be explored.

HIST 3370 Pre-Colonial Africa: 3 semester hours.

Study of African history before the arrival of the Europeans that 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 3371 Post-Colonial African History: 3 semester hours.**HIST 3375 African Diaspora: 3 semester hours.**

Introduction to the people of African descent. Students will explore origins on the continent of Africa, the places blacks were dispersed to as a result of the slave trade, emancipation movements across the globe, and the movements for black equality around the world. The course also examines the musical, artistic, literary, and cultural contributions of people of African descent.

HIST 3399 Independent Study: 1-3 semester hour.

Readings, research, and/or field work on selected topics.

HIST 4195 TExES Prep-Hist/Soc Studies: 1 semester hour.

This course is designed to help students prepare to take the Texas Examination of Educator Standards (TExES) in History/Social Studies. This course is typically taken the semester before Student Teaching, or during the senior year for those who are doing alternative certification.

HIST 4305 Early Christianity: 3 semester hours.

An exploration of early Christianity from its emergence within Second-Temple Judaism to its spread and influence within the Roman world to the fourth century AD. Students will read primary sources in translation and analyze the development of the Church as an institution and community, issues of Christian doctrine and discipline, as well as methods and problems of historical interpretation.

HIST 4344 Special Topics: 3 semester hours.

This course will focus on specific historical topics that the professor deems appropriate and student's desire. May be repeated for credit when topics vary.

HIST 4381 African-American Hist to 1876: 3 semester hours.

Intensive readings in a broad range of texts that form the foundation of the African-American historical experience. Students will deal with readings that cover an expansive time frame ranging from the colonization of Africa through the ending of the American Reconstruction. This course will provide students an opportunity to read seminal texts by scholars who have written about the African-American experience. Major issues and historical figures covered: the colonization of Africa, the Trans-Atlantic Slave Trade, American chattel slavery, Black Abolitionism, Frederick Douglass, Nat Turner, Linda Brent, Harriet Tubman, Sojourner Truth, the Underground Railroad, Emancipation, and the Reconstruction era.

HIST 4382 African-Amer Hist Since 1876: 3 semester hours.

Intensive readings in a broad range of texts that form the foundation of the African-American historical experience during the modern period. Students will deal with readings covering a period that extends from the Nadir through contemporary America. This course will provide students an opportunity to read seminal texts by scholars who have written about the post-slavery African-American experience. Major issues and historical figures covered include, but are not limited to: the Nadir, Booker T. Washington, W.E.B. DuBois, The Great Migration, The Harlem Renaissance, the March on Washington Movement, the Civil Rights Movement, the Murder of Emmett Louis Till, Malcolm X, the Rev. Dr. Martin Luther King, Jr., the Black Panther Party for Self-Defense, the decline of Urban America, the rise of the Prison Industrial Complex, and the election of Barack Hussein Obama.

HIST 4383 Malcolm X and the Nation of Islam: 3 semester hours.

An advanced survey of the historical events of the life, assignment, and impact of Malcolm X (Omwale) both within The Nation (NOI) and in the nation (USA). This will include his upbringing, family, the rise of Garveyism and the UNIA, the influence of Elijah Muhammad and the growth of the NOI (Nation of Islam), Civil Rights and Black Power Movements.

HIST 4390 Senior Seminar: 3 semester hours.

Advanced training in historical methods and historiography designed to measure student's understanding and mastery of the discipline.

HIST 4394 History and Social Studies Methods: 3 semester hours.

This course focuses on 1) the mastery of historical facts related to US, world, and Texas histories, 2) understanding the various teaching methods used in the social studies classroom, and 3) the development of lesson plans for the EC – 6, and 4-8 Social Studies classrooms. The student will also be introduced to the social studies standards of the Texas Essential Knowledge and Skills (TEKS) for licensure in Texas public schools.

Prerequisites: (HIST 1301 or HIST 1313 and (HIST 1302 or HIST 1323)) or HIST 2301 or HIST 1333 or POSC 2305 or POSC 1113 or POSC 2306 or POSC 1123.

HIST 4399 Independent Study: 3 semester hours.

Readings, research, and/or field work on selected topics.

Philosophy Courses

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 or ENGL 1301.

PHIL 2306 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 or ENGL 1301.

PHIL 2307 African American Philosophy: 3 semester hours.

This course is a survey of the philosophical writings of some of the most important African American thinkers from the nineteenth to twenty-first century. Its aim is to gain familiarity with the works of influential African American philosophers while also learning to engage critically and responsibly with philosophical texts.

Prerequisites: ENGL 1123 or ENGL 1301.

PHIL 2309 Ethics of Cybersecurity: 3 semester hours.

This course provides a comprehensive examination of ethics as applied to the field of cybersecurity. Students will learn ethical frameworks and principles that they will apply to diverse issues within and related to cybersecurity. Specific topics to which ethical tools will be applied include but are not limited to value conflicts in cybersecurity systems, especially between system administrators and users; privacy, censorship, and filtering; intellectual property rights and digital rights management; special issues concerning the Internet of Things (IoT); accessibility and social justice. Special emphasis will be placed on issues of social justice pertaining to race, gender, ability, and socio-economic variables.

PHIL 3304 Philosophy of Science: 3 semester hours.

This course will introduce and explore conceptual, methodological, and epistemological issues about science: concept formation, explanation, prediction, confirmation, and theory construction; the status of unobservable; metaphysical presuppositions and implications of science; semantics of scientific language; illustrations from special sciences.

Prerequisites: ENGL 1123 or ENGL 1301 and (PHIL 2303).

PHIL 3305 Philosophy of Law: 3 semester hours.

Examination of the main fields of law, including criminal law, torts, constitutional law, contracts, property law, jurisprudence and international law. The focus will be on the underlying philosophical, moral and jurisprudential rationales for these; and classic texts and landmark cases will be read, to illuminate these fields. Students will also acquire legal reasoning and critical thinking skills, to help them distinguish stronger from weaker legal arguments and rulings.

Prerequisites: ENGL 1123 or ENGL 1301 and (PHIL 2023 or PHIL 2306).

PHIL 3306 Bioethics: 3 semester hours.

Provides grounding in basic theories, principles, and historical cases concerning bioethics.

Prerequisites: ENGL 1123 or ENGL 1301 and (PHIL 2023 or PHIL 2306).

PHIL 3307 Environmental Ethics: 3 semester hours.

This course is an interdisciplinary examination and assessment of the leading global thesis on environmental ethics, climate change, and sustainability. The aim of the course is to gain familiarity with contemporary global environmental issues while also learning to engage critically and responsibly with arguments concerning ethical action and environmental policy.

Prerequisites: PHIL 2023 or PHIL 2306.

PHIL 3308 Global Social Justice and Ethics: 3 semester hours.

This course is an interdisciplinary examination and assessment of the leading global theories on human rights, social justice, and ethics. The aim of the course is to gain familiarity with contemporary global challenges while also learning to engage critically and responsibly with arguments concerning ethical action and policy to address them.

Prerequisites: PHIL 2023 or PHIL 2306.

Political Science Courses

POSC 2304 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 2305 or POSC 1113 and (POSC 2306 or POSC 1123).

POSC 2305 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 2306 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 2311 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 2312 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 2314 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 2321 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 2341 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 2342 Data Analysis in Political Science: 3 semester hours.

The course covers the use of software applications and statistical procedures used to analyze data in the study of political science.

Prerequisites: POSC 2304 or POSC 2133.

POSC 2350 Global Issues: 3 semester hours.

Critical evaluation of selected current issues and problems in world politics facing the global community, such as war, terrorism,, the environment , hunger, energy, population, migration, human rights , and trade.

POSC 2353 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 2354 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 3312 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, Bodding, Hobbes, Locke, Montesquieu, Jefferson, Rousseau, Mills, Hegel, and Marx.

POSC 3314 Election Law and Voting Rights: 3 semester hours.

A thorough examination of election laws at the federal, state, and local levels and how they guide the conduct of elections by officials and voters alike.

POSC 3321 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.

POSC 3331 Political 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 2305 or POSC 1113 and (POSC 2306 or POSC 1123).

POSC 3341 Gandhi and King: 3 semester hours.

Historical examination of Gandhian and Kingian nonviolent political resistance in the context of the indian independence movement and the American civil rights movement.

Prerequisites: POSC 2305 or POSC 1113 and (HIST 1302 or HIST 1323).

POSC 3342 Political Resistance and Social Change: 3 semester hours.

Examines instances in which ordinary citizens forge ways to address the political system when "normal" channels are unavailable to them. Investigates social movements and how ordinarily quiescent masses attempt to impact the political process.

POSC 3351 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.

POSC 3353 U.S. Foreign Policy: 3 semester hours.

This is a study of the American foreign policy, including the objectives, capabilities and formulation process.

POSC 3354 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.

POSC 3355 African Politics: 3 semester hours.

Explores the political history and development of African states.

POSC 3359 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 3399 Independent Study: 1-3 semester hour.

Readings, research, and/or field-work on selected topics. Prerequisite: consent of advisor.

POSC 4310 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.

POSC 4311 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 2305 or POSC 1113 and (POSC 2306 or POSC 1123).

POSC 4313 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.

POSC 4314 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.

POSC 4319 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.

POSC 4320 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 4321 Seminar in Political Science: 3 semester hours.

This course is devoted to intensive reading, writing, research, and discussion focusing on selected topics.

POSC 4324 Race, Gender and Public Policy: 3 semester hours.

Examines how racial and gender groups, broadly defined, both influence and are influenced by, American public policy.

Prerequisites: POSC 2305 or POSC 1113.

POSC 4399 Independent Study: 3 semester hours.

Readings, research, and/or field-work on selected topics. Prerequisite: consent of advisor.

POSC 4615 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.

Sociology Courses

SOCC 1301 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.

SOCC 1306 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 2301 Sociology of Marriage and Family: 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 2302 Black Families: 3 semester hours.

Students will be introduced to the diverse institutional, cultural, and historical issues relating to the past and present life circumstances of Black American families. Some comparisons will be made with families in Africa and the Diaspora.

SOCG 2306 Gender and Sexuality: 3 semester hours.

An exploration of how socializing agents such as the family, media, sports, school, work and religion aid in the development of gender roles, gender identity and gender inequality.

SOCG 2319 Sociology of Minorities: 3 semester hours.

Sociological study of traditional minorities (race, ethnicity, and religion) and new minorities (gender, sexual orientation and disability).

SOCG 2326 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 3300 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 1314 or MATH 1332 or MATH 1113 or MATH 1103.

SOCG 3301 Urban and Rural 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 3303 Social Inequality: 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 3305 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 3306 Sociology of Drug Use and Abuse: 3 semester hours.

Historical and contemporary analysis of patterns of use and abuse of legal and non-legal drugs in the U.S. and other parts of the world. Social-psychological impact of abuse, dependence, and addiction. Evaluation of consequences and treatment.

SOCG 3307 Conformity, Deviance, and Identity: 3 semester hours.

Analyzes social conformity, societal sanctions, and social control in relationship to the Sociological study of deviance, and identity. Applies theoretical explanations of deviance and identity to explore the intersection of social control, race/ethnicity, social class, and gender.

SOCG 3310 Sociological Research Methods: 3 semester hours.

Introduction to methods of sociological research including experiments, survey research, secondary analysis, and observation.

SOCG 3315 African American Urban Life: 3 semester hours.

This course examines African Americans as agents in shaping the urban experience in the United States. Examples will be drawn from communities such as Harlem, NY, the Central Avenue districts of Los Angeles, Chicago's south Side and the Auburn Avenue districts of Atlanta, as well as others.

Prerequisites: SOCG 1013 or SOCG 1301.

SOCG 3320 Sociological Theory: 3 semester hours.

Critical survey of major sociological theories from classical to contemporary schools of thought.

SOCG 3322 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.

SOCG 4301 Religions in the African Diaspora: 3 semester hours.

Examines the historical progression of traditional African spirituality and cultures across various regions beyond Africa; and historical trends that have shaped the repression of African Diasporic religious life within its social context. Topics within the course will include the following: religious syncretism, black theology, black secularism, freedom movements, repatriation and the role of religious institutions in containing civil society.

SOCG 4302 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.

SOCG 4303 Introduction to Black Sociology: 3 semester hours.

A survey of theoretical paradigms and social structures and their impact on primarily black people with generalization to broader human behavior.

SOCG 4304 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.

SOCG 4307 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.

SOCG 4309 Race Relations: 3 semester hours.

Wide range explorations 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 4310 Sociology of Entrepreneurship: 3 semester hours.

This course takes a sociological approach to explore entrepreneurship and organizations at various from levels of analysis. This course examines concepts of organizational structure, capital including human, cultural, and financial; the navigation of legitimacy, uncertainty and risk; as well as the role of race, class, gender, discrimination, and racism within organizations.

SOCG 4314 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.

SOCG 4315 Clinical and Applied Sociology: 3 semester hours.

Applies sociology concepts, theory, and methods to analyze and engage challenges facing business, government, non-governmental organizations, and groups. Students will apply a sociological approach to research, identify social problems, and propose solutions in hands-on projects to local community organizations and business to propose solutions.

Prerequisites: SOCG 3310.

SOCG 4376 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.

SOCG 4378 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.

SOCG 4399 Independent Study: 3 semester hours.

Readings, research, and/or field work on selected topics.

SOCG 5312 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.

SOCG 5321 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.

SOCG 5322 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 5324 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 5326 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 5328 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 Crime and Society: 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 5335 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 5341 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, Goffman, Coser, Dahrendorf, Marcuse and Habermas and their application to current research.

Prerequisites: SOCG 5321 or SOCG 5213.

SOCG 5342 Social Inequality: 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 5344 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 5345 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 5346 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 5352 Black Family: 3 semester hours.

This course is designed to explore the Black family from a number of different perspectives. We will research and discuss how institutions affect family structure, relationships, socioeconomic conditions, health and other factors. Different theoretical frameworks will be used to explain the historical and contemporary status and experiences of Black families in the United States.

SOCG 5355 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 5361 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 5362 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 5321 or SOCG 5213.

SOCG 5372 Black Sociology: 3 semester hours.

Examines the contributions of black sociological theorists, public intellectuals, and methodologists including but not limited to selected topics such as Black Marxism, the Atlanta Laboratory School, Postcolonial Studies, Black Feminism, and Critical Race Theory providing the foundation for contemporary theory.

SOCG 5382 Graduate Capstone: 3 semester hours.

Serves as the culminating experience for non-thesis MA students. This course will allow graduate students to develop writing and presentation skills, and integrate past learning.

SOCG 5383 Media Studies: 3 semester hours.

Explores how various avenues of the media impact human behavior with a focus on theory and themes such as: race, gender, class, culture, technology and globalization.

SOCG 5384 Urban Field Research: 3 semester hours.

The course is designed to provide theoretical foundations for and guided practical experience in conducting field research in urban settings.

SOCG 5399 Independent Study: 3 semester hours.

Readings, research, and/or field work on selected topics.

Division Of Social Sciences, Undergraduate

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

The Division of Social Sciences allows those students interested in pursuing a career in the K-12 academic environment to major in either history or political sciences and still obtain the teacher's certification. The degree will be designated as a Bachelor of Arts in History or Political Science degree with secondary teacher certification.

Students pursuing the teacher's certification must consult with their advisor in the Division of Social Sciences within their first two semesters of study at Prairie View A&M University to ensure timely completion of the University's core curriculum before applying to the Whitlowe R. Green College of Education. For more information on the requirements and guidelines for admission to the teacher's certification program, students should see the teacher certification section of the catalog under the Whitlowe R. Green College of Education.

African American Studies Program

Mission and Vision

African American Studies is an interdisciplinary academic pursuit that explores and elucidates the lived experiences of African descendant people in the United States and globally. The African American Studies program ultimately seeks to equip the next generation of academic scholars, activists, and leaders. We align our endeavor with the original Black Studies mission to document black life, produce rigorous academic research, challenge students to think critically and engage with the broader community about the role African descendant peoples have played in US nation building and world making beyond its borders.

Program Goals

1. Ensure students receive an appropriate grounding in the field's major themes and can place these themes in a historical context and use the knowledge to address the social science issues of race, racism, and inequality in African Americans' lives.
2. Develop students' critical, analytical, research, writing, and oral skills.
3. Emphasize the importance of diverse perspectives and intersecting identities in understanding the lives of African Americans.
4. Promote civic and community engagement activities among students and faculty to enhance African American communities.

African American Studies, BA

Bachelor of Arts in African American Studies Degree Program Requirements

Complete Core Curriculum Listing at <https://catalog.pvamu.edu/universitycorecurriculum/>.

Core Curriculum 42 Credit Hours

Communication (Select Two)	6
Mathematics (Select One)	3
Life and Physical Sciences (Select Two) ¹	6
Language, Philosophy and Culture (Select One)	3
Creative Arts (Select One)	3
American History (Select Two)	6
Government/Political Science	6
POSC 2305 American Government	
POSC 2306 Texas Government	
Social and Behavioral Sciences (Select One)	3
Component Area Option One (Select One)	3
Component Area Option Two (Select One)	3

Foreign Language Requirements (One Language) 6

Major Requirements

AFAM 1301 Race Class and Gender in America	3
AFAM 2302 Introduction to Research Methods and Writing in African American Studies	3
AFAM 4301 Seminar in African American Studies	3
AFAM 4302 Internship in Public History	3
HIST 2381 African-American History	3
HIST 3301 Introduction to Public History	3

Restricted Electives

Area I Social Sciences (Select Two)	6
COMM 2355 Communication, Globalization, International Media	

CRIJ 3393	Minorities and the Criminal Justice System	
HDFM 2355	Human Development: Life Span	
PHIL 2307	African American Philosophy	
POSC 3341	Gandhi and King	
POSC 3355	African Politics	
POSC 3342	Political Resistance and Social Change	
POSC 4324	Race, Gender and Public Policy	
SOCG 2319	Sociology of Minorities	
SOCG 2302	Black Families	
SOWK 2317	Multicultural Issues in Mental Health	
SOWK 3321	Human and Cultural Diversity Social Work	
Area II Humanities and Arts (Select Two)		6
AFAM 4331	Special Topics in African American Studies	
ARTS 2328	African American Art	
DRAM 2322	African American Theatre II	
ENGL 2324	Introduction to African Literature	
ENGL 3305	Survey of African-American Literature	
ENGL 3306	Studies in African-American Literature	
HIST 3322	Women in History	
HIST 3350	American Chattel Slavery	
HIST 3353	Civil Rights Movement	
HIST 3360	Atlantic World	
HIST 3361	Colonial Latin Amer & Carrib	
HIST 3375	African Diaspora	
HIST 4381	African-American Hist to 1876	
HIST 4382	African-Amer Hist Since 1876	
HUMA 1305	Survey of Mexican-American Culture	
Area III Historical and Cultural Preservation (Select Two)		6
DGMA 2317	Fundamentals of Digital Imaging	
DGMA 2318	Fundamentals of Interactive Media	
GEOG 2311	Introduction to Geographic Information System	
HIST 2300	Intro to Historical Methods	
SOCG 3315	African American Urban Life	
SOCG 4363	Cultural Sociology	
Upper Level Elective (Select Two) ¹		6
Unrestricted Electives		12
Minor ²		18
Total Hours		120

¹ Students may choose a 3000 or 4000 level elective in any of the three areas.

² Total SCH for minor may vary; please consult your academic advisor.

Bachelor of Arts in African American Studies Degree Sequence

Core: <https://catalog.pvamu.edu/universitycorecurriculum/> (<https://catalog.pvamu.edu/academicprogramsanddegreeplans/marvindandjunesamuelbrailsfordcollegeofartsandsciences/socialworkbehavioralpoliticalsciences/undergrad/aastudies-ba/%20https://catalog.pvamu.edu/universitycorecurriculum/>)

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
AFAM 1301		3 HIST 2381	3
Communication Core		3 Communication Core	3
American History Core		3 American History Core	3
Government/Political Science Core		3 Government/Political Science Core	3

POSC 2305	POSC 2306	
Mathematics Core	3 Social and Behavioral Sciences Core	3
Total	15 Total	15

Total Hours: 30

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours
AFAM 2302		3 Component Area Option Two Core	3
Area I Social Sciences Course		3 Life and Physical Sciences Core	3
Component Area Option One Core		3 Area I Social Sciences Course	3
Life and Physical Sciences Core		3 Area II Humanities and Arts Course	3
Creative Arts Core		3 Area II Humanities and Arts Course	3
Total		15 Total	15

Total Hours: 30

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Foreign Language Requirement		3 Foreign Language Requirement	3
Language, Philosophy, and Culture Core		3 Minor Requirement	3
Area III Historical and Cultural Preservation Course		3 3000 or 4000 Level Elective	3
Area III Historical and Cultural Preservation Course		3 3000 or 4000 Level Elective	3
Minor Requirement		3 HIST 3301	3
Total		15 Total	15

Total Hours: 30

Senior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
AFAM 4301		3 AFAM 4302	3
Minor Requirement		3 Minor Requirement	3
Minor Requirement		3 Minor Requirement	3
Unrestricted Elective		3 Unrestricted Elective	3
Unrestricted Elective		3 Unrestricted Elective	3
Total		15 Total	15

Total Hours: 30

Name	Unit
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Total Semester Credit Hours: 120

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

BA African American Studies

Degree Skills

1. Identify, discuss, and explain the cultural, political, and historical contributions of African Americans and African descendant people
2. Appropriate grounding in the field's major themes and ability to place these themes in a historical context and use the knowledge to address the social science issues of race, racism, and inequality in African Americans' lives
3. Applied experience in preservation work and completion of substantial research projects

Concentration Skills

1. Ability to construct a research proposal and/or produce oral presentations
2. Analysis of how the multiple and complex intersections of race, sex, and gender, and other identities affect the lives of African Americans
3. Emphasize the importance of diverse perspectives and intersecting identities in understanding the lives of African Americans

Co-curricular and Extracurricular Skills

1. Promote civic and community engagement activities among students and faculty to enhance African American communities
2. Integrate course work and experiential learning projects to contribute to diverse communities
3. Critical, analytical, research, writing, and oral skills

History, BA

Bachelor of Arts in History Degree Program Requirements

Complete Core Curriculum Listing at <https://catalog.pvamu.edu/universitycorecurriculum/>

Core Curriculum 42 Credit Hours

Communication (Select Two)	6
Mathematics (Select One)	3
Life and Physical Sciences (Select Two)	6
Language, Philosophy, and Culture (Select One)	3
Creative Arts (Select One)	3
American History (Select Two)	6
Government/Political Science	6
POSC 2305 American Government	
POSC 2306 Texas Government	
Social and Behavioral Sciences (Select One)	3
Component Area Option One (Select One)	3
Component Area Option Two (Select One)	3
Foreign Language Requirements (One Language)	6

Major Requirements ²

HIST 2321 World Civilizations I	3
HIST 2322 World Civilizations II	3
HIST 2300 Intro to Historical Methods	3
HIST 4381 African-American Hist to 1876	3
HIST 4382 African-Amer Hist Since 1876	3
HIST 4390 Senior Seminar	3

18 semester credit hours of Advanced History Electives 18

Advanced U.S History Electives (6-12 semester credit hours)

HIST 2301 Texas History	
HIST 2383 History of HBCUs	
HIST 2320 Military History	
HIST 2381 African-American History	
HIST 3301 Introduction to Public History	
HIST 3322 Women in History	
HIST 3332 Contemporary United States	
HIST 3350 American Chattel Slavery	
HIST 3353 Civil Rights Movement	
HIST 3351 Global Black Power	
HIST 3399 Independent Study	
HIST 4344 Special Topics ³	
HIST 4383 Malcolm X and the Nation of Islam	
HIST 4394 History and Social Studies Methods	
HIST 4399 Independent Study	
HIST 4195 TExES Prep-Hist/Soc Studies ⁴	

Advanced Global History Electives (6-12 semester credit hours)		
HIST 3315	Ancient Egypt & the Near East	
HIST 3316	Ancient Greece	
HIST 3317	Ancient Rome	
HIST 3318	Medieval Europe	
HIST 3360	Atlantic World	
HIST 3361	Colonial Latin Amer & Carrib	
HIST 3370	Pre-Colonial Africa	
HIST 3371	Post-Colonial African History	
HIST 3375	African Diaspora	
HIST 4305	Early Christianity	

Support Area Requirements		
ECON 2302	Principles of Microeconomics	3
ENGL 2327	American Literature I	3
GEOG 1302	Introduction to Human Geography	3
POSC 2000 Level or Above		3

Unrestricted Electives **6**

Concentration Requirements (Select one option from below) **18**

Minor Field of Study (18 SCH) ⁵		
With Teacher Certification Concentration		
CUIN 3300	Educational Foundations	
CUIN 3301	Educational Psychology	
CUIN 4310	Instructional Planning and Assessment	
CUIN 4311	Instructional Methodology and Classroom Management	
CUIN 4682	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 Special Topics are repeatable for credit when the course topic differs.
- ⁴ This is a one (1) semester credit hour course designed to prepare students majoring in Secondary Education (History/Social Studies) to take the required state certification exams.
- ⁵ Depending on the credit hours required by the selected minor.

Bachelor of Arts in History Degree Sequence

Core: <https://catalog.pvamu.edu/universitycorecurriculum/> (<https://catalog.pvamu.edu/universitycorecurriculum/>)

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Component Area Option One Core		3 Communication Core	3
Communication Core		3 American History Core	3
American History Core		3 Social and Behavioral Science Core	3
Mathematics Core		3 Life and Physical Sciences Core	3
Life and Physical Sciences Core		3 Beginning Foreign Language I	3
Total		15 Total	15

Total Hours: 30

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Beginning Foreign Language II		3 Unrestricted Elective	3
Government/Political Science Core		3 Government/Political Science Core	3
POSC 2305		POSC 2306	

Unrestricted Elective	3 Language, Philosophy, and Culture Core	3
Creative Arts Core	3 Component Area Option Two Core	3
HIST 2321	3 HIST 2322	3
Total	15 Total	15

Total Hours: 30

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
HIST 2300		3 ENGL 2327	3
HIST Advanced History Elective		3 or ENGL 2328	
HIST Advanced History Elective		3 HIST Advanced History Elective	3
ECON 2301		3 HIST Advanced History Elective	3
or ECON 2302		Concentration	3
Concentration		3 GEOG 1302	3
Total		15 Total	15

Total Hours: 30

Senior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
HIST 4381		3 HIST 4382	3
HIST Advanced History Elective		3 HIST 4390	3
Concentration		3 Concentration	3
Concentration		3 Concentration	3
POSC Political Science 2000 Level or Above Support Course		3 HIST Advanced History Elective	3
Total		15 Total	15

Total Hours: 30

Name	Unit
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Total Semester Credit Hours: 120

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

BA History

Degree Skills

1. Explain basic methodological concepts that help historians assemble, organize, evaluate, and interpret evidence
2. Demonstrate critical thinking in understanding of major events and trends in the United States and globally
3. Effectively identify and communicate historical arguments based on common ideals and themes in the field of history

Concentration Skills

1. Understand the various pedagogies used in teaching social science concepts
2. Develop the skills necessary to manage student learners in the classroom environment
3. Master the communications skills to effectively deal with school administrators, teachers and parents

Co-curricular and Extracurricular Skills

1. Effectively read and interpret existing historical arguments
2. Ability to identify people, events and trends in a historical context
3. Ability to professionally communicate research findings and analyses (orally and written) without bias or prejudice

1.

Political Science, BA

Bachelor of Arts in Political Science Degree Program Requirements

Complete Core Curriculum Listing at <https://catalog.pvamu.edu/universitycorecurriculum/>

Core Curriculum 42 Credit Hours

Communication (Select Two)	6
Mathematics (Select One)	3
Life and Physical Sciences (Select Two)	6
Language, Philosophy, and Culture (Select One)	3
Creative Arts (Select One)	3
American History (Select Two)	6
Government/Political Science	6
POSC 2305	American Government
POSC 2306	Texas Government
Social and Behavioral Sciences (Select One)	3
Component Area Option One (Select One)	3
Component Area Option Two (Select One)	3

Foreign Language Requirements (One Language) 6

Major Requirements ²

POSC 2304	Introduction to Political Science	3
POSC 2341	Scope and Methods in Political Science	3
POSC 2342	Data Analysis in Political Science	3

Restricted Political Science Electives: 27

American Politics Electives (Choose at least one)		
POSC 2354	State and Local Government	
POSC 4311	American Constitutional Law	
POSC 4313	The Presidency	
POSC 4314	The Legislative Process	
POSC 4320	Judicial Politics	
International Relations/Comparative Politics Electives (Choose at least one)		
POSC 2353	Latin American and Caribbean Politics	
POSC 3351	Comparative Politics	
POSC 3353	U.S. Foreign Policy	
POSC 3354	International Politics	
POSC 3355	African Politics	
POSC 3359	Middle East Politics	
Public Administration/Public Policy Electives (Choose at least one)		
POSC 2312	Public Administration	
POSC 3321	Public Policy Analysis	
POSC 4310	Urban Government and Politics	
POSC 4324	Race, Gender and Public Policy	
Political Science Electives (Choose up to six courses)		
POSC 2311	Political Parties and Elections	
POSC 2314	Legal Studies	
POSC 2321	Blacks and the American Political System	
POSC 2350	Global Issues	
POSC 3312	Modern Political Theory	
POSC 3314	Election Law and Voting Rights	
POSC 3331	Political Studies Thru Film	
POSC 3341	Gandhi and King	
POSC 3342	Political Resistance and Social Change	

POSC 3399	Independent Study	
POSC 4319	Special Topics in Political Science	
POSC 4321	Seminar in Political Science	
POSC 4399	Independent Study	
POSC 4615	Internship in Political Science	
Support Area		
ECON 2301	Principles of Macroeconomics	3
ENGL 2314	Advanced Composition	3
or ENGL 2327	American Literature I	
or ENGL 2328	American Literature II	
or ENGL 3304	Professional Writing for Electronic Media	
or ENGL 3324	Studies in American Literature	
GEOG 1302	Introduction to Human Geography	3
or GEOG 1303	World Regional Geography	
or GEOG 2311	Introduction to Geographic Information System	
Unrestricted Electives		9
Concentration Requirement (Select one option from below)		18
Minor field of study (18 SCH) ⁴		
With Teacher Certification Concentration (18 SCH)		
CUIN 3300	Educational Foundations	
CUIN 3301	Educational Psychology	
CUIN 4310	Instructional Planning and Assessment	
CUIN 4311	Instructional Methodology and Classroom Management	
CUIN 4682	Student Teaching Secondary II	

Total Hours **120**

- 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 credit hours credits when the topic differs.
- ⁴ Depending on the credit hours required by the selected minor.

Bachelor of Arts in Political Science Degree Sequence

Core: <https://catalog.pvamu.edu/universitycorecurriculum/> (<https://catalog.pvamu.edu/academicprogramsanddegreeplans/marvindandjunesamuelbrailsfordcollegeofartsandsciences/socialworkbehavioralpoliticalsciences/undergrad/polisci-ba/%20https://catalog.pvamu.edu/universitycorecurriculum/>)

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Communication Core		3 Communication Core	3
Government/Political Science Core		3 Government/Political Science Core	3
POSC 2305		POSC 2306	
Component Area Option One Core		3 Foreign Language I	3
Mathematics Core		3 Social and Behavioral Science Core	3
Life and Physical Sciences Core		3 Life and Physical Sciences Core	3
Total		15 Total	15

Total Hours: 30

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Foreign Language II		3 Unrestricted Elective	3
American History Core		3 American History Core	3
Unrestricted Elective		3 Language, Philosophy, and Culture Core	3

Creative Arts Core	3 Component Area Option Two Core	3
POSC 2304	3 GEOG 1302	3
Total	15 Total	15

Total Hours: 30

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
POSC 2341		3 English Support Course	3
Unrestricted Elective		3 POSC Political Science Elective	3
POSC Political Science Elective		3 POSC Political Science Elective	3
PSYC 2317		3 ECON 2301	3
or SOCG 4305		Concentration or Minor Requirement	3
Concentration or Minor Requirement		3	
Total		15 Total	15

Total Hours: 30

Senior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
POSC 3354		3 POSC 4311	3
POSC Political Science Elective		3 POSC Political Science Elective	3
Concentration or Minor Requirement		3 Concentration or Minor Requirement	3
Concentration or Minor Requirement		3 Concentration or Minor Requirement	3
POSC Political Science Elective		3 POSC Political Science Elective	3
Total		15 Total	15

Total Hours: 30

Name	Unit
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Total Semester Credit Hours: 120

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

BA Political Science

Degree Skills

1. Conduct and present quantitative and qualitative social science research
2. Formulate solutions to pressing domestic and global policy issues
3. Engage in political affairs through civic and government institutions

Co-curricular and Extracurricular Skills

1. Communicate effectively and persuasively through the written and spoken word
2. Critically analyze, then solve problems working in teams
3. Organize public events for civic engagement and participation

Sociology, BA

Bachelor of Arts in Sociology Degree Program Requirements

Complete Core Curriculum Listing at <https://catalog.pvamu.edu/universitycorecurriculum/>.

Core Curriculum 42 Credit Hours

Communication (Select Two)	6
Mathematics (Select One)	3

Life and Physical Sciences (Select Two)		6
Language, Philosophy, and Culture (Select One)		3
Creative Arts (Select One)		3
American History (Select Two)		6
Government/Political Science		6
POSC 2305	American Government	
POSC 2306	Texas Government	
Social and Behavioral Sciences (Select One)		3
Component Area Option One (Select One)		3
Component Area Option Two (Select One)		3
Foreign Language Requirement (One Language)		6
Major Requirements ²		
SOCG 1301	General Sociology	3
SOCG 3300	Social Statistics	3
or PSYC 2317	Statistical Methods in Psychology	
or POSC 2342	Data Analysis in Political Science	
SOCG 3310	Sociological Research Methods	3
SOCG 3320	Sociological Theory	3
SOCG 4378	Senior Seminar in Sociology	3
Seven (7) SOCG electives determined in consultation with an advisor.		21
Support Area Requirements		6
Writing and Communications (Choose 1)		
ENGL 2311	Technical and Business Writing	
ENGL 2314	Advanced Composition	
COMM 1311	Introduction to Speech Communication	
COMM 1318	Interpersonal Communication	
Public Service (Choose 1)		
GEOG 2311	Introduction to Geographic Information System	
POSC 2312	Public Administration	
POSC 2354	State and Local Government	
Minor Requirements ³		18
Unrestricted Electives		12
Total Hours		120

¹ All Sociology 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 a "C" in all classes pertaining to their major and in those required in the support area and unrestricted electives. Furthermore, a minimum grade of a "C" is required in the minor area (if applicable).

³ Depending on the credit hours required by the selected minor.

Bachelor of Arts in Sociology Degree Sequence

Core: <https://catalog.pvamu.edu/universitycorecurriculum/> (<https://catalog.pvamu.edu/academicprogramsanddegreeplans/marvindandjunesamuelbrailsfordcollegeofartsandsciences/socialworkbehavioralpoliticalsciences/undergrad/socg-ba/%20https://catalog.pvamu.edu/universitycorecurriculum/>)

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Communication Core		3 Communication Core	3
American History Core		3 American History Core	3
SOCG 1301		3 Unrestricted Elective	3
Mathematics Core		3 Language, Philosophy, and Culture Core	3

Component Area Option One Core	3 Unrestricted Elective	3
Total	15 Total	15

Total Hours: 30**Sophomore**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Life and Physical Sciences Core ¹		3 Life and Physical Sciences Core ¹	3
Government/Political Science Core		3 Government/Political Science Core	3
SOCG 3320		3 Foreign Language II	3
Foreign Language I		3 Creative Arts Core	3
SOCG 3310		3 Sociology Elective 1	3
Total		15 Total	15

Total Hours: 30**Junior**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Writing and Communication ENGL 2311, 2314, COMM 1311, or COMM 1318		3 Public Service GEOG 2311, POSC 2312, or POSC 2354	3
Sociology Elective 2		3 SOCG 3300	3
Social and Behavioral Science Core		3 Sociology Elective 4	3
Minor Requirement		3 Minor Requirement	3
Sociology Elective 3		3 Unrestricted Elective	3
Total		15 Total	15

Total Hours: 30**Senior**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Component Area Option Two Core		3 SOCG 4378	3
Sociology Elective 5		3 Sociology Elective 7	3
Sociology Elective 6		3 Minor Requirement	3
Minor Requirement		3 Minor Requirement	3
Minor Requirement		3 Unrestricted Elective	3
Total		15 Total	15

Total Hours: 30

Total Semester Credit Hours 120

¹ Take a BIOL, CHEM, PHYS, or PHSC sequence

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

BA Sociology

Degree Skills

1. Ability to think analytically
2. Verbal and written communication competency
3. Cross-cultural awareness

Co-curricular and Extracurricular Skills

1. Critical thinking
2. Understanding of group dynamics and interpersonal relationships

Division Of Social Sciences, Graduate

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., PhD) 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.
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.

Academic Standards

To successfully matriculate through the M.A. program, 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.

Sociology, MA

Master of Arts in Sociology Degree Program Requirements

A total of 30 semester hours of graduate coursework must be completed in graduate status. For those opting to do a thesis, the requirements include 24 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 principal advisor, and one additional faculty member from the Division of Social Sciences. The topic of the thesis will be determined by the student and the advisor. The format will follow American Sociological Association 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, 24 hours of course work must be completed and 6 hours of supervised thesis hours. Of the 24 hours of course work, 9 hours are core requirements and the remaining 15 are sociology support/elective requirements.

For students selecting the non-thesis option, 30 hours of course work must be completed: 9 hours of core courses, 15 hours of support area requirements, and 6 hours of related field electives, which may be any combination of sociology graduate courses or graduate-level courses outside of sociology.

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 Sciences to the Dean of the Graduate School for approval.

Degree Program Requirements

Non-Thesis Concentration

Major Requirements		9
SOCG 5321	Classical Sociological Theory ¹	
SOCG 5322	Research Methods	
SOCG 5382	Graduate Capstone	

Related Field Electives

Students may take two additional SOCG courses (6 hours) or up to two courses (6 hours) from the following:

ADMN 5300	Fundamentals of School Administration	
ADMN 5301	Educational Administration: Theory, Practice and Research	
ADMN 5313	School-Community Relations	

CODE 5301	Introduction to Community Development	
CNSL 5300	Organization and Administration of School Counseling Programs	
CNSL 5302	Theory and Practice of Counseling	
CNSL 5303	Counseling Process	
CNSL 5304	School Consultation	
CNSL 5305	Orientation to Counseling and Development	
CNSL 5308	Psychology of Abnormal Behavior	
CNSL 5311	Career Development Counseling	
CNSL 5314	Human Growth and Development	
CNSL 5315	School Counseling in a Multicultural Society	
EDFN 5311	Psychology of Learning and Development	
EDFN 5312	Socio-Cultural Issues in Education	
HLTH 5306	Human Behavior and Health Education	
HLTH 5307	Epidemiology and Diseases	
HLTH 5314	Medical Foundations for Health Professions	
HLTH 5317	Nutrition and the Environment	
HLTH 5318	Contemporary Health	
HLTH 5319	Community Health	
HUSC 5334	Research Problems	
HUSC 5355	Human Development	
HUSC 5368	Family Ethics and Issues	
JJUS 5311	Foundations of Criminal Justice	
JJUS 5312	Foundations of Juvenile Justice	
JJUS 5324	Community Building and Organizing	
JJUS 5325	Domestic and Family Violence	
JJUS 5343	Correctional Programming	
JJUS 5352	Management of Juvenile Justice Organizations	
JJUS 5376	Theories of Delinquency	
JJUS 5378	Ethics	
JJUS 5391	Special Topics in Juvenile Justice	
JJUS 5397	Policy Analysis and Program Evaluation	
Sociology Electives		15
SOCG 5341	Contemporary Sociological Theory	
SOCG 5324	Urban Sociology	
SOCG 5333	Crime and Society	
SOCG 5335	Seminar in Race Relations	
SOCG 5342	Social Inequality	
SOCG 5344	Social Movements	
SOCG 5345	Complex Organizations	
SOCG 5346	Special Topics	
SOCG 5352	Black Family	
SOCG 5355	Sociology of Gender and Sex Roles	
SOCG 5372	Black Sociology	
SOCG 5383	Media Studies	
SOCG 5384	Urban Field Research	
Total Hours		30
Thesis Concentration		
Major Requirement		6
SOCG 5321	Classical Sociological Theory ¹	
SOCG 5322	Research Methods	
Tools Course Requirements		3

Select one course (3 hours) selected from the following		
CNSL 5309	Educational Statistics	
CODE 5308	Demography and GIS	
MGMT 5311	Business Statistics	
SO CG 5312	Social Statistics	
Thesis		6
SO CG 5361	Thesis	
SO CG 5362	Thesis	
Sociology Electives:		15
SO CG 5341	Contemporary Sociological Theory	
SO CG 5324	Urban Sociology	
SO CG 5326	Sociology of Education	
SO CG 5333	Crime and Society	
SO CG 5335	Seminar in Race Relations	
SO CG 5342	Social Inequality	
SO CG 5344	Social Movements	
SO CG 5345	Complex Organizations	
SO CG 5346	Special Topics	
SO CG 5352	Black Family	
SO CG 5355	Sociology of Gender and Sex Roles	
SO CG 5372	Black Sociology	
SO CG 5382	Graduate Capstone	
SO CG 5383	Media Studies	
SO CG 5384	Urban Field Research	

Total Hours **30**

¹ Either SOCG 5321 or SOCG 5341 may be taken as a Major Requirement. Whichever course is taken for the Major Requirement, the other may be taken as a Sociology Elective

Master of Arts in Sociology- Non Thesis Concentration Degree Sequence

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
SO CG 5322		3 SOCG 5321		3 Sociology Elective	3
Sociology Elective		3 or SOCG 5341			
Sociology Elective		3 Sociology Elective		3	
		Related Field Elective		3	
Total		9 Total		9 Total	3

Total Hours: 21

Second Year

Fall - Semester 1	Hours
Sociology Elective	3
SO CG 5382	3
Related Field Elective	3
Total	9

Total Hours: 9

Name	Unit
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Total Semester Credit Hours: 30

MA Sociology-Thesis Concentration

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
SOCG 5322		3 SOCG 5321		3 Sociology Elective	3
Sociology Elective		3 or SOCG 5341			
Sociology Elective		3 Research Tools Course		3	
		SOCG 5361		3	
Total		9 Total		9 Total	3

Total Hours: 21

Second Year

Fall - Semester 1	Hours
Sociology Elective	3
Sociology Elective	3
SOCG 5362	3
Total	9

Total Hours: 9

Name	Unit
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Total Semester Credit hours: 30

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

MA Sociology

Degree Skills

1. Research project management, creating and managing work teams, gathering and evaluating data, creating and analyzing surveys, interviewing and creating oral histories, research ethics, working with research subjects, public research, public speaking, preparing presentations, analyzing and summarizing data to present reports, effective writing, examining alternate explanations from various points of view
2. Reading and analyzing information from a critical perspective, evaluating theoretical frameworks, evaluating data, analyzing complex problems, applying and extending theoretical frameworks to applied problems
3. Cultural sensitivity, awareness and promotion of social justice, recognizing and challenging inequities based on race/class/gender/ableism/ethnicity/religion/ageism/sexual orientation, assessing social needs, building community, and work ethic

Co-curricular and Extracurricular Skills

1. Project development and management, civic engagement, public speaking, community inclusion in research, public sociology
2. Adaptability, problem solving, accountability, working in teams
3. Develop and implement project schedules/calendars, develop civic goals, communication with the public, visualize social justice at the community/national/international level

Department of Languages and Communication

Purpose and Goals

The diverse 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. The programs offer students a liberal arts education emphasizing media studies and production, literary studies, advanced research and writing skills, and the acquisition of language and communication skills in English, Spanish, Arabic, and Chinese.

The objective of the department is to prepare students for a broad range of careers in teaching, professional and creative writing, interpersonal communication and public relations, media production, and other professions that require advanced skills in communication, critical thinking, and creative problem-solving. Historically, our primary task has been to provide Prairie View A&M University students with advanced verbal and written skills, technical media knowledge, preparation for graduate and professional schools, and career placement. The Department of Languages and

Communication continues this mission with recent highlights that include a fully renovated digital television studio equipped with the latest in production technology; PC and Macintosh computer laboratories with cutting-edge software programs for media creation; a media and language performance laboratory; and courses in global languages and culture.

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).

Foreign Languages

Serving a diverse ethnic and socioeconomic population, the Foreign Languages faculty is dedicated to excellence in teaching, research, and service. We are committed to helping our students become global citizens through the exciting path of multi-literacy and multilingualism.

Basic Language Program

In the basic language program (lower-level foreign language classes), we prepare students to function at professional levels in Spanish (<https://catalog.pvamu.edu/universitycourses/span/>), Chinese (<https://catalog.pvamu.edu/universitycourses/chin/>), and Arabic (<https://catalog.pvamu.edu/universitycourses/arab/>). These classes are the foundation of foreign language learning, fulfill college foreign language requirements, and also serve as course electives. We educate our students to not only do well in all levels of their chosen language but also to be able to procure international certifications of their linguistic abilities.

Spanish Minor

In addition to the basic language program, the Foreign Languages Program also offers a minor in Spanish (<https://catalog.pvamu.edu/academicprogramsanddegreeplans/marvindandjunesamuelbrailsfordcollegeofartsandsciences/languagescommunication/#minorplanstext>). The Spanish minor includes coursework that is geared toward advanced language acquisition as well as the study of the cultures of the Hispanic diaspora. Within a state and region that is increasingly bilingual, the addition of a Spanish minor to any student's primary course of study gives them a significant and tangible advantage within a workforce that must have the intercultural and linguistic abilities to effectively communicate with monolingual Spanish speakers.

Study Abroad

Study abroad is a great way to enhance and accelerate the learning of a foreign language. We promote not only seeking abroad opportunities in the languages we offer but also in languages not offered at the university. Our faculty are ready to help you attain your language learning goals no matter the language and can help you find the right opportunity if you are interested in studying a critical language (as defined by the US Department of State). There are many scholarship opportunities to study abroad as well as to study intensely during the summer in the US. Reach out to your foreign language professor and to the Office of International Programs (<https://www.pvamu.edu/internationalprograms/>) to learn more.

More About Foreign Languages

Our continued dedication to student success is also expressed in adopting free and very low-cost Open Educational Resources (OER) texts for all BLP (1000-2000 level) classes starting in the Spring of 2020. OERs have been proven to save student bodies millions of dollars as well as remove barriers to learning. We remain dedicated to this movement and supportive of this A&M System initiative with our enthusiastic adoption of these resources in our classes.

The Foreign Languages Program is committed to quality research in the areas of literature, pedagogy, and linguistics. Our faculty and staff are avid publishers, grant writers, and presenters in their fields. We believe in the pertinent and well-guided application of technology to language instruction and learning through the use of a variety of apps, websites, and digital humanities projects in our classroom. Finally, we are committed to service in our larger department, the college, the university, and our greater Houston Metropolitan community.

Minors in the Department of Languages and Communications

The Department of the Languages and Communications offers academic minors in Creative Writing (p.), Spanish (p.), Communication (p.), English (p.), and Humanities (p.)

Minor in Creative Writing

Creative Writing is an interdisciplinary minor that prepares students for creative work in a range of both traditional and new media. Creative Writing minors will develop highly adaptable skills related to content creation and critical thinking and apply them in areas like print and digital media, poetry and fiction, screenwriting, journalism and feature writing, teaching, editing, and more.

Required Minor Courses

ENGL 2307	Introduction to Creative Writing
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ENGL 3302	Creative Writing Practices	
Creative Writing Elective		3
ENGL 3330	Fiction Writing Workshop	
ENGL 3334	Poetry Writing Workshop	
Creative COMM Elective (choose two)		6
COMM 1336	Video Production I	
COMM 1342	Voice and Diction	
COMM 2339	Screen Writing	
COMM 2371	Visual Communication	
COMM 3352	Feature and Magazine Writing	
COMM 3372	Digital Video Production I	
COMM 3373	Television Studio Production	
COMM 4371	Voice and Performance	
COMM 4372	Digital Video Production II	
Literature Elective (choose one)		3
ENGL 2323	British Literature II	
ENGL 2324	Introduction to African Literature	
ENGL 2328	American Literature II	
ENGL 2330	Introduction to Film	
ENGL 3305	Survey of African-American Literature	
ENGL 3306	Studies in African-American Literature	
ENGL 3308	Literature of the African Diaspora	
ENGL 3315	Literary Theory and Criticism	
ENGL 3324	Studies in American Literature	
ENGL 4326	Toni Morrison	
Total Hours		18

Minor in Spanish

Required Minor Courses		6
SPAN 2311	Intermediate Spanish I	
SPAN 2312	Intermediate Spanish II	
Spanish Electives (choose any four SPAN courses at the 2000-level or above)		12
Total Hours		18

Minor in Communication

The minor in Communication requires any combination of 18 SCH (6 courses) in COMM courses. Students must observe prerequisites for any selected courses, and most COMM courses require COMM 1307 and a COMM writing course as prerequisites.¹ Courses selected for the COMM minor may not be counted toward core curriculum or major requirements.

¹ The COMM writing selections are COMM 2351, COMM 2311, COMM 2339, COMM 2315, COMM 3352, and COMM 4354.

Minor in English

Required Minor Courses		12
ENGL 2322	British Literature I	
or ENGL 2323	British Literature II	
ENGL 2327	American Literature I	

or ENGL 2328	American Literature II	
ENGL 3315	Literary Theory and Criticism	
ENGL 4343	Special Topics in English	
English Electives (choose any two ENGL courses at the 2000-level or above) ¹		6
Total Hours		18

¹ English electives may not also be used to fill requirements in the core curriculum or in the selected academic major. Students who may pursue teacher certification in the future are strongly encouraged to take ENGL 3322 as one of their electives.

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.

Requirements: No more than 6 SCH from any single course discipline may be counted toward the minor, and courses selected for the minor may not also count toward the core curriculum or the student's major. Eligible course disciplines include ARAB (Arabic), ARCH (Architecture), ARTS (Arts), CHIN (Chinese), DRAM (Theatre), ENGL (English), 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.

Required Minor Course		3
HUMA 1301	Introduction to Humanities	
Foreign Language (any 2000 level or higher course in SPAN, ARAB, or CHIN)		3
Humanities Electives (select any four courses): ¹		12
ARCH 1301	Architectural History I	
ARCH 1302	History of Architecture II	
ARTS 1303	Art History I (Prehistoric to the 14th Century)	
ARTS 1304	Art History II (14th century to the present)	
ARTS 2328	African American Art	
CHIN 2311	Intermediate Chinese I	
CHIN 2312	Intermediate Chinese II	
DRAM 1310	Introduction to Theatre	
DRAM 2322	African American Theatre II	
ENGL 2341	Introduction to Literature	
ENGL 2325	Adolescent Literature	
ENGL 2322	British Literature I	
ENGL 2323	British Literature II	
ENGL 2334	Studies in Literature	
ENGL 2331	Survey of World Literature	
ENGL 2327	American Literature I	
ENGL 2328	American Literature II	
ENGL 3305	Survey of African-American Literature	
ENGL 3306	Studies in African-American Literature	
ENGL 3315	Literary Theory and Criticism	
ENGL 3324	Studies in American Literature	
ENGL 4322	Shakespeare	
ENGL 4343	Special Topics in English	
MUSC 1321	Fundamentals of Music	
MUSC 1306	Music in Contemporary Life	
MUSC 2311	Music Theory III	
MUSC 1307	Music Literature	
MUSC 2333	Afro-American Music	
MUSC 3331	Music History	

MUSC 3332	Music History
PHIL 2306	Ethics
PHIL 2303	Critical Thinking
SPAN 2311	Intermediate Spanish I
SPAN 2312	Intermediate Spanish II
SPAN 2320	Spanish Conversation
SPAN 2321	Spanish Composition
SPAN 3302	Survey of Spanish Literature I
SPAN 3307	Spanish-American Literature II
SPAN 3309	Hispanic Civilization and Culture I
SPAN 3330	Hispanic American Film
SPAN 4300	Hispanic Civilization and Culture II
SPAN 4343	Special Topics in Spanish

¹ No more than 6 SCH from any single course discipline on the list of eligible courses, including foreign languages.

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 Language), 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.

Affiliations

The department encourages membership in several national and international societies organizations for its majors. Qualified students may join Society of Professional Journalists (SPJ), Public Relations Student Society of America (PRSSA), Forensic Society, or the student chapter of American Advertising Federation (AAF). The department also has affiliations with or participation in programs of such professional organizations as Association for Education in Journalism and Mass Communication (AEJMC), Broadcasting Education Association (BEA), Southern States Communication Association (SSCA), Association for Higher Education Communication Technology Advancement (AHECTA), Freedom Forum, National Association of Broadcasters (NAB), Radio Television Digital News Association (RTNDA), Academy of Motion Picture Arts and Sciences, American Society of News Editors (ASNE), and the Poynter Institute.

Arabic Courses

ARAB 1301 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 1302 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 1301 or ARAB 1013.

Chinese Courses

CHIN 1301 Beginning 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 1302 Beginning Chinese II: 3 semester hours.

Continuation of acquisition of language skills and culture introduced in Beginning Chinese I.

Prerequisites: CHIN 1301 or CHIN 1013.

CHIN 2311 Intermediate Chinese I: 3 semester hours.

Continuation of acquisition of language skills and culture presented in Beginning Chinese I and II.

Prerequisites: CHIN 1302 or CHIN 1023.

CHIN 2312 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 2311 or CHIN 2013.

Communications Courses

COMM 1160 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 1307 Introduction to Mass Communication: 3 semester hours.

This course offers students an overview of mass communication, which includes discussion of the mass media industries and academic research in the field. Students further develop their critical thinking skills as they dissect the business models of the media industries. They are also encouraged to explore the complex relationship between communication and culture.

COMM 1311 Introduction to 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 1318 Interpersonal Communication: 3 semester hours.

This course will examine personal and interpersonal factors affecting communication in everyday life. Emphasis will be placed upon ways in which interpersonal perception, physical environment, semantic choices, and nonverbal cues affect communication primarily in the context of work, family, and other personal experiences.

COMM 1336 Video Production I: 3 semester hours.

This course is an introduction to basic remote digital video production. It relies on practical exercises illustrating key concepts of preproduction, production, and postproduction.

COMM 1342 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 1311 or COMM 1003.

COMM 2300 Media Literacy: 3 semester hours.

In this course, students will be challenged to think critically about the media content they encounter in their daily lives (e.g., film, television, new media, and social media). Throughout the semester, we will analyze, interpret, and evaluate media texts. We will also examine the forces that drive the media industries and reflection the ways the media influence society and culture. Clips, screenings, and other examples will familiarize students with a variety of cultures and prompt students' consideration of different points of view.

Prerequisites: ENGL 1301 or ENGL 1123.

COMM 2303 Digital Audio Production I: 3 semester hours.

This course will introduce students to the basic elements of audio production, including recording techniques, equipment, production, and editing. Students will also be introduced to the history of radio, radio equipment and techniques as well as hands on production for radio broadcast.

Prerequisites: COMM 1713 or COMM 1307.

COMM 2305 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 1307 or COMM 1713 and (ENGL 1302 or ENGL 1133 or ENGL 1143 or ENGL 2311).

COMM 2311 Broadcast Writing: 3 semester hours.

This course will introduce students to the fundamentals of broadcast journalism. Students will be trained in the range of skills needed to produce audiovisual news content, including researching and writing scripts, conducting interviews, and visual storytelling.

Prerequisites: COMM 2351 or COMM 2513.

COMM 2315 News Writing and Reporting: 3 semester hours.

This course introduces students to the fundamentals of news writing for print and digital media. Students will develop skills in the following areas: identification of newsworthy data, methods of writing leads, as well as writing news and feature stories for publication

Prerequisites: COMM 2351 or COMM 2513.

COMM 2333 Discussion and Small Group Communication: 3 semester hours.

This course emphasizes the role of communication in the dynamics of small group behavior. Group presentations focus on fact-finding, information-sharing, and problem-solving/decision-making processes. Students will learn team-building skills and strengthen their abilities to communicate within a cohesive small group environment.

Prerequisites: COMM 1311 or COMM 1003.

COMM 2335 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 1311 or COMM 1003.

COMM 2339 Screen Writing: 3 semester hours.

This course teaches the fundamentals for developing and writing film and television screenplays while studying story structure, character development, plot, tone, arc, and climax. In addition, students will create pitches, synopses, treatments, a premise, a logline, a short film screenplay, and a writers' room TV pilot while mastering screenwriting software.

Prerequisites: COMM 2351 or COMM 2513.

COMM 2351 Principles of Writing for the Discipline: 3 semester hours.

This course will introduce students to the facets of writing for all of the major concentrations within the field of communication. Students will learn skills for writing in professional development, media, performance, technical writing, and research writing.

Prerequisites: COMM 1307 or COMM 1713 and (COMM 1318 or COMM 2603).

COMM 2355 Communication, Globalization, International Media: 3 semester hours.

This course will allow students access to selected forms of international media. They will explore what globalization is and critically analyze current global issues. Interested students will have an option to participate in an international study abroad experience. Participation in a study abroad program is not a requirement for enrollment.

COMM 2371 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 or COMM 1307.

COMM 2375 Introduction to Performance: 3 semester hours.

Introduce students to the field of oral interpretation and performance studies. Process of creating, communicating, and performing texts from various forms of literature, including poetry, prose, public address, and various forms of media. Includes a focus on the specific challenges and potentialities in writing for performance.

Prerequisites: COMM 1311 or COMM 1003.

COMM 3170 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 3304 Multimedia Audio Production and Design: 3 semester hours.

This course teaches all aspects of recording production sound for dialogue, Foley recording, sound effects, and automated dialogue replacement (ADR), as well as post-production (e.g., sound design, sound editing, and sound mixing) using Final Cut Pro X and Audacity. In addition, students will create, record, edit and mix podcasts, voiceovers, and radio commercials—building a professional voiceover reel, sound mixing reel, and podcast show.

Prerequisites: COMM 1733 or COMM 1336.

COMM 3321 Media Management: 3 semester hours.

This course provides an overview of the business principles for various media platforms in a competitive environment, the legal and procedural aspects of traditional and digital media, and the theoretical aspects of media leadership. Students will apply these concepts through content creation and managing their own mock media companies.

COMM 3351 Communication Law & Ethics: 3 semester hours.

This course examines the idea of free speech as it has developed in the United States with attention to mass media law, including topics such as libel, 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.

COMM 3352 Feature and Magazine Writing: 3 semester hours.

Students learn the techniques used for news gathering and how to write feature articles for newspapers, magazines, and digital media. The course also provides a survey of freelance writing procedures.

Prerequisites: COMM 2351 or COMM 2513.

COMM 3360 Persuasion: 3 semester hours.

In this course, students will study the nature, necessity, and ethics of persuasion. They will explore how persuasion has impacted communication and society through history and current trends. Students will also learn about the many correlated facets of persuasion such as deception, visual persuasion, and also persuasion in advertising. Students will present speeches and group projects with different persuasive concepts driving each. This course explores the nature, necessity, and ethics of persuasion. Students will explore how persuasion has impacted communication and society and also learn about the many correlated facets of persuasion—such as deception, visual persuasion, and persuasion in advertising. They will present speeches and group projects with different persuasive concepts driving each.

Prerequisites: COMM 1311 or COMM 1003.

COMM 3364 Nonverbal Communication: 3 semester hours.

This course covers basic nonverbal communication theories and research.

COMM 3365 Gender Communication: 3 semester hours.

This course introduces students to contemporary communication theory and research on the interconnections between gender and communication.

COMM 3366 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.

COMM 3371 Communication Technology: 3 semester hours.

In this course, students will explore the impact of digital media on culture and society and investigate how these devices shape the way we work, play, think, and interact with others. Students will participate in rich discussions on a number of topics, which could include online romance, media piracy, and virtual communities, among others.

COMM 3372 Digital Video Production I: 3 semester hours.

This course is designed to familiarize students with pre-production, single-camera digital video production, and post-production. In addition, students will learn the technology, art, and practices involved in compelling visual storytelling. By completing this course, students will have a foundational understanding of and gain practical experience in writing, producing, directing, shooting, and editing digital content with a completed project ready for the film festival circuit or broadcast in various media.

Prerequisites: (COMM 1713 or COMM 1307) and ((COMM 2513 or COMM 2351) or (COMM 2523 or COMM 2311) or (COMM 2533 or COMM 2339) or (COMM 2543 or COMM 2315)).

COMM 3373 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 or COMM 1307) and ((COMM 2513 or COMM 2351) or (COMM 2533 or COMM 2339) or (COMM 2543 or COMM 2315)).

COMM 3374 Principles of Advertising: 3 semester hours.

This course introduces students to the world of advertising, including the structure of the industry, the structure of ads, and its role in American culture. Students are trained to think more critically, strategically, and creatively through the development of original advertising campaigns.

COMM 3375 Principles of Public Relations: 3 semester hours.

This course will provide a comprehensive understanding of public relations' role in organizations and society. Students will explore how public relations has developed as a discipline and the contemporary role of public relations in everyday communication between publics. They will learn to write their own press releases, build comprehensive communication plans for organizations, and create media related to those organizations' PR plans.

COMM 3385 Communication as Storytelling: 3 semester hours.

This course examines the ways in which personal and cultural identities are created, shaped, and shared through oral traditions. Using narrative analysis and the writing and performance of texts, students explore what narratives tell about themselves, individually and communally.

Prerequisites: COMM 2375.

COMM 3399 Independent Study: 1-3 semester hour.

Readings, research, and /or field work on selected topics at the 1000 through the 3000 levels.

COMM 4344 The Message: Hip Hop as Communication: 3 semester hours.

Students will learn to critically analyze hip hop media texts and utilize these texts as lenses for examining contemporary society. Students will not only develop a greater appreciation for hip hop as a communicative tool (not unlike classic novels, poetry, and other literary forms), but they will also be challenged to think deeply and reflectively about a wide variety of social issues.

Prerequisites: ENGL 1133 or ENGL 1302 or ENGL 1143 or ENGL 2311.

COMM 4350 Media Criticism: 3 semester hours.

This course introduces students to the theories, concepts, and debates of media studies scholarship. Students will engage in intensive academic reading and writing. Topics include, but are not limited to media representation, social construction of reality, media activism, and globalization.

Prerequisites: COMM 2351 or COMM 2513.

COMM 4351 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 2351 or COMM 2513.

COMM 4352 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 2351 or COMM 2513.

COMM 4353 Communication Research: 3 semester hours.

This course focuses on the academic research process—from defining research questions to designing studies and reporting results. Students will learn about the most common data-gathering and measurement techniques in Communication research, including experiments, surveys, content analysis, historical analysis, and qualitative methods.

Prerequisites: COMM 2351 or COMM 2513.

COMM 4354 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 2351 or COMM 2513.

COMM 4360 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.

COMM 4361 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.

COMM 4369 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 2351 or COMM 2513.

COMM 4370 Professional Internship: 3 semester hours.

This course requires students to spend the semester working in a professional setting. Internships must be secured in a mass communication-related field and approved in advance by the instructor. Media professionals and faculty provide direct supervision and feedback on the student's performance. The internship must be off campus (unless by permission of department head). This course can be repeated for up to 6 semester credit hours.

COMM 4371 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: (ENGL 1133 or ENGL 1302 or ENGL 1143 or ENGL 2311) and COMM 2375.

COMM 4372 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 3372 or COMM 3723.

COMM 4373 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 3372 or COMM 3723.

COMM 4375 Advanced Performance: 3 semester hours.

Examination of the interconnections between the narrative structure of everyday life and using performance as a metaphor and a method of studying identity and culture. Includes research of texts and performance practices and how these impact social issues.

Prerequisites: COMM 2375.

COMM 4379 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 2351 or COMM 2513.

COMM 4389 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.

Prerequisites: COMM 2351 or COMM 2513.

COMM 4399 Independent Study: 1-3 semester hour.

Readings, research, and/or field work on selected topics.

English Courses

ENGL 0010 Writing Basics Lab I: 0 semester hours.

This is a basic writing course designed to focus on the basic elements of composition writing to include the writing process, writing mechanics, sentence structure, and paragraph writing. There is a strong emphasis on identifying correct sentence structure and mechanics in written material and drafting topic sentences that introduce unified, coherent paragraphs. Classroom instruction is enhanced by required lab-based activities.

ENGL 0021 Non-course Based Option I - Integrated Reading and Writing: 0 semester hours.

This non-course based option is designed to provide individualized integrated reading and writing instructions to students who did not successfully complete ENGL 0313-Integrated Reading and Writing II.

Prerequisites: ENGL 0313 or ENGL 0133.

ENGL 0030 Comp Writing Skills: 0 semester hours.

This course will enhance reading and writing skills with a major focus on the essay format. It will facilitate the student's writing proficiency with an emphasis on development of paragraphs, themes, and reports as needed for college level reading and writing
Co-requisite: ENGL 1301.

ENGL 0111 Integrated Reading & Writing Review Skills: 1 semester hour.

This course will enhance the student's performance in Freshman Composition I. The learner will improve skills in critical thinking, grammar and mechanics, and sentence and paragraph writing. Students will also be introduced to and develop a basic understanding of rhetorical analysis and essay writing necessary for successful completion of Freshman Composition I. This course is a corequisite course for students who have not passed the Reading and/or English sections of the TSI and must be taken concurrently with Freshman Composition I.
Co-requisite: ENGL 1301.

ENGL 0311 Integrated Reading and Writing Review Skills: 1 semester hour.

This is an intermediate level reading and writing course designed to improve students ability to develop paragraphs, essays, and short themes.

ENGL 0313 Integrated Reading and Writing II: 3 semester hours.

This is an advanced reading and writing course designed to prepare students for Freshman Composition I. Topics include basic reading and advanced critical writing skills. Students will be expected to write compositions similar to those assigned in Freshman Composition I. Emphasis on use of enhanced editing skills, writing multi-paragraph essays, paraphrasing paragraphs and longer passages.

Prerequisites: (TSI DIAG MainIdea with a score of 04 and TSI DIAG AuthorLang with a score of 04 and TSI DIAG SentStruc with a score of 05 and TSI DIAG Agree with a score of 05) or ENGL 0311 or (TSI DIAG MainIdea with a score of 04 and TSI DIAG AuthorLang with a score of 04) or (TSI DIAG SentStruc with a score of 05 and TSI DIAG Agree with a score of 05).

ENGL 1301 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 1302 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 1301 or ENGL 1123.

ENGL 2307 Introduction to Creative Writing: 3 semester hours.

Introductory course in three fundamental creative forms: poetry, fiction, and creative nonfiction.
Prerequisites: ENGL 1302 or ENGL 1133.

ENGL 2311 Technical and Business 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 1301 or ENGL 1123.

ENGL 2314 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 1302 or ENGL 1133.

ENGL 2322 British Literature I: 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 1302 or ENGL 1133.

ENGL 2323 British Literature II: 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 1302 or ENGL 1133.

ENGL 2324 Introduction to African Literature: 3 semester hours.

Critical examination of the development of African literature, emphasizing historical and cultural contexts, and literary analysis.
Prerequisites: ENGL 1302 or ENGL 1133 or ENGL 1143 or ENGL 2311.

ENGL 2325 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 1301 or ENGL 1123 and (ENGL 1302 or ENGL 1133).

ENGL 2327 American Literature I: 3 semester hours.

Critical examination of the colonial period to 1865, including poetry, prose, and drama in their historical and cultural contexts.
Prerequisites: (ENGL 1302 or ENGL 1133) or (ENGL 2311 or ENGL 1143).

ENGL 2328 American Literature II: 3 semester hours.

Critical examination of the period 1865 to the present, including poetry, prose, and drama in their historical and cultural contents.

Prerequisites: ENGL 1302 or ENGL 1133 or ENGL 1143 or ENGL 2311.

ENGL 2330 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 1301 or ENGL 1123.

ENGL 2331 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 1301 or ENGL 1123.

ENGL 2334 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 1301 or ENGL 1123.

ENGL 2341 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 1301 or ENGL 1123.

ENGL 3302 Creative Writing Practices: 3 semester hours.

An intermediate course that focuses on the practices and techniques of creative writing, with special attention to the three fundamental creative forms: poetry, fiction, and nonfiction. The course also covers effective strategies for teaching creative writing and using creative writing as a pedagogical tool within other disciplines.

Prerequisites: ENGL 1302 or ENGL 1133 or ENGL 1143 or ENGL 2311.

ENGL 3304 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 2311 or ENGL 1143) or (ENGL 1302 or ENGL 1133).

ENGL 3305 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 1302 or ENGL 1133) or (ENGL 2311 or ENGL 1143).

ENGL 3306 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 1302 or ENGL 1133 or ENGL 1143 or ENGL 2311.

ENGL 3307 Writing for Legal Professions: 3 semester hours.

Application of principles of effective professional writing as well as legal research and reasoning to the production of well-structured and well-written documents related to the legal professions, including but not limited to case briefs, legal memoranda, and legal correspondence.

Prerequisites: (ENGL 1302 or ENGL 1133) or (ENGL 1143 or ENGL 2311).

ENGL 3308 Literature of the African Diaspora: 3 semester hours.

Critical examination of fiction, poetry, drama, folktales, and other literatures produced by people of African descent from around the globe, including but not limited to Europe, the Americas, the Caribbean, Asia, and the South Pacific. Texts may span the precolonial, colonial, and postcolonial periods and cover a wide range of themes related to the Black experience within global communities.

Prerequisites: ENGL 1302 or ENGL 1133 or ENGL 1143 or ENGL 2311.

ENGL 3315 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 1302 or ENGL 1133.

ENGL 3322 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 1302 or ENGL 1133.

ENGL 3324 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 1302 or ENGL 1133 or ENGL 1143 or ENGL 2311.

ENGL 3330 Fiction Writing Workshop: 3 semester hours.

A workshop course focused on the fundamentals of writing fiction, with an emphasis on short fiction. Students will study the craft of writing fiction as exemplified within contemporary examples and will produce original fiction through workshop sessions covering all stages of the writing process, including brainstorming, planning, drafting, peer review, revision, and editing.

Prerequisites: ENGL 1302 or ENGL 1133 or ENGL 1143 or ENGL 2311.

ENGL 3334 Poetry Writing Workshop: 3 semester hours.

A workshop course focused on the fundamentals of writing poetry of various forms. Students will study the craft of writing poetry as exemplified writing contemporary examples and will produce original poetry through workshop sessions covering all stages of the writing process, including brainstorming, planning, drafting, peer review, revision, and editing.

Prerequisites: ENGL 1302 or ENGL 1133 or ENGL 1143 or ENGL 2311.

ENGL 3399 Independent Study: 1-3 semester hour.

Readings, research, and /or field work on selected topics at the 3000 level.

ENGL 4300 Studies in Teaching ELAR: 3 semester hours.

Advanced course on pedagogy and best practices for teaching English Language Arts and Reading (ELAR) for grades 7-12 based on current NCTE standards.

Prerequisites: ENGL 1302 or ENGL 1133.

ENGL 4322 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 1302 or ENGL 1133) or (ENGL 2311 or ENGL 1143).

ENGL 4326 Toni Morrison: 3 semester hours.

Critical examination of the works of Toni Morrison, emphasizing a study of their historical, cultural, and literary contexts.

Prerequisites: ENGL 1302 or ENGL 1133 or ENGL 1143 or ENGL 2311.

ENGL 4343 Special Topics in English: 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 3315 or ENGL 3153 or ENGL 3305 or ENGL 3053 or ENGL 3306 or ENGL 3063 or ENGL 3243 or ENGL 3324.

ENGL 4399 Independent Study: 1-3 semester hour.

Readings, research, and/or field work on selected topics.

Spanish Courses

SPAN 1301 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 1302 Elementary Spanish II: 3 semester hours.

Continuation of acquisition of language skills and culture introduced in Elementary Spanish 1.

SPAN 2311 Intermediate Spanish I: 3 semester hours.

Continuation of acquisition of language skills and culture presented in Elementary Spanish I and II.

SPAN 2312 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 2315 Spanish for Healthcare Professions: 3 semester hours.

Practice in listening, speaking, reading and writing skills in Spanish to acquire elementary medical vocabulary and expressions. Research work on selected topics.

Prerequisites: SPAN 1302 or SPAN 1023.

SPAN 2317 Spanish for Law Enforcement: 3 semester hours.

Practice in listening, speaking, reading and writing skills in Spanish to acquire elementary law enforcement vocabulary and basic communication.

Prerequisites: SPAN 1302 or SPAN 1023.

SPAN 2320 Spanish Conversation: 3 semester hours.

Practice in oral conversation. Guided conversation involving the vocabulary of everyday situations.

Prerequisites: SPAN 1302 or SPAN 1023.

SPAN 2321 Spanish Composition: 3 semester hours.

Practice in written composition. Salient principles of grammar and syntax in written work.

Prerequisites: SPAN 1302 or SPAN 1023.

SPAN 3302 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 2312 or SPAN 2023.

SPAN 3307 Spanish-American Literature II: 3 semester hours.

A survey of Spanish-American literature since the Modernista movement.

Prerequisites: SPAN 2312 or SPAN 2023.

SPAN 3309 Hispanic Civilization and Culture I: 3 semester hours.

Main currents of the intellectual, political, and economic history of Spain.

Prerequisites: SPAN 2312 or SPAN 2023.

SPAN 3330 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 2312 or SPAN 2023.

SPAN 3340 Latin American Detective Fiction: 3 semester hours.

Representative selections of detective fiction of Latin America from the twentieth century to the present. It enables students to examine detective fiction within its social, cultural, and historical contexts.

Prerequisites: SPAN 2023 or SPAN 2312.

SPAN 4300 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 2312 or SPAN 2023.

SPAN 4306 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 2312 or SPAN 2023 and (SPAN 3320 or SPAN 3203) and (SPAN 3321 or SPAN 3213).

SPAN 4343 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 2312 or SPAN 2023.

SPAN 4399 Independent Study: 3 semester hours.

Readings, research, and/or field work on selected topics.

Prerequisites: SPAN 2312 or SPAN 2023.

Undergraduate

Purpose and Goals

The Languages and Communications Department offers Bachelor of Arts degrees in Communication and English, and minors in Communication, English, Spanish, and Humanities. The Foreign Language program offers courses in Arabic, Chinese, French, and Spanish. The department prepares students for a broad range of careers in teaching, professional writing, interpersonal communication and public relations, and media production technologies. The department provides Prairie View A&M University students with advanced verbal and written skills, technical media knowledge, preparation for graduate and professional schools, and career placement utilizing updated resources, such as campus labs and computer software resources, to stay current with existing employment trends.

Communication, BA

Bachelor of Arts in Communication Degree Program Requirements

The Communication Program at Prairie View A&M University is designed to integrate theory with technology to prepare students for careers as communication professionals. The faculty teach classes using up-to-date skills and techniques and a sophisticated understanding of the organization of various media formats. With access to cutting-edge facilities and equipment for media content creation, course offerings enhance the acquisition of knowledge of the methods used in television and video production, news broadcasting, and writing and editing for print media. In addition, students are trained in public speaking, debate, public relations, advertising, and ethics and laws that govern public communication.

Students choose one of two concentrations for the Bachelor of Arts degree in Communication, either the **Communication Studies** track or the **Mass Communication** track. Both tracks give students a foundation in important concepts and skills including law and ethics, interpersonal communication, disciplinary writing, theory, research, and criticism.

Complete Core Curriculum Listing at <https://catalog.pvamu.edu/universitycorecurriculum/>

Core Curriculum 42 Credit Hours

Communication (Select Two)	6
Mathematics (Select One)	3
Life and Physical Sciences (Select Two)	6
Language, Philosophy, and Culture (Select One)	3
Creative Arts (Select One) ¹	3
American History (Select Two)	6
Government/Political Science	6
POSC 2305 American Government	
POSC 2306 Texas Government	
Social and Behavioral Sciences (Select One)	3
Component Area Option One (Select One)	3
Component Area Option Two (Select One) ¹	3

Foreign Language Requirements (Any One Language) 6**Core Major Requirements 18**

COMM 1307 Introduction to Mass Communication	
COMM 1318 Interpersonal Communication	
COMM 3351 Communication Law & Ethics	
COMM 4350 Media Criticism	
or COMM 4351 Rhetorical Criticism	
COMM 4353 Communication Research	
COMM 4389 Senior Communication Capstone	

Communication Writing Requirements 6

COMM 2351 Principles of Writing for the Discipline	
Select one of the following:	
COMM 2339 Screen Writing	
COMM 2315 News Writing and Reporting	
COMM 3352 Feature and Magazine Writing	
COMM 4354 Advanced Writing for the Discipline	
COMM 2311 Broadcast Writing	

Concentration (Select one from below) 18**Minor Requirements ² 18****Unrestricted Electives ³ 12****Total Hours 120**

¹ COMM 2300 and COMM 1318 are options for the core, but they may not satisfy both core and major requirements.

² Communication majors are required to select a minor of their choice. They must satisfy the catalog requirements for the selected minor.

³ Unrestricted electives may be chosen from any area, though additional COMM courses are encouraged. If the selected minor is more than 18 SCH, unrestricted electives may be reduced.

Communication Studies Concentration

Communication Studies is a concentration dealing with the processes and theories of human communication interaction. This concentration deals with interpersonal, family, health, intercultural, workplace, organizational, and other communication interactions. This concentration analyzes human communication experiences as they relate to persuasion, theory, social scientific exploration, critical and cultural examination, and rhetorical analysis. Students who choose this concentration can find employment in human resources, business, consulting, and education as well as other fields; and it is the perfect stepping-stone for further study at the graduate level. Flexible in nature, this 18 SCH concentration offers a large pool of course options and allows students to choose five courses (15 SCH) that align with their career goals and personal interests. Students in the Communication Studies Concentration are also required to take Small Group Communication.

Required Concentration Course 3

COMM 2333 Discussion and Small Group Communication	
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Concentration Electives (choose 5) 15

COMM 2375	Introduction to Performance
COMM 2355	Communication, Globalization, International Media
COMM 2335	Argumentation and Debate
COMM 1342	Voice and Diction
COMM 2300	Media Literacy
COMM 2371	Visual Communication
COMM 3321	Media Management
COMM 3360	Persuasion
COMM 3364	Nonverbal Communication
COMM 3365	Gender Communication
COMM 3366	Intercultural Communication
COMM 3371	Communication Technology
COMM 3374	Principles of Advertising
COMM 3375	Principles of Public Relations
COMM 3385	Communication as Storytelling
COMM 4344	The Message: Hip Hop as Communication
COMM 4375	Advanced Performance
COMM 4352	Communication Theory
COMM 4360	Organizational Communications
COMM 4361	Political Communication
COMM 4369	Special Topics in Communication Studies ¹
COMM 4370	Professional Internship
COMM 4371	Voice and Performance

Total Hours**18**¹ May be repeated up to 6 SCH with different topics.

Mass Communication Concentration

The Mass Communication Concentration is designed for students who are interested in pursuing careers in the mass media industries. This includes careers in television, film, radio, magazines, newspapers, digital media, and the music industry. Students in this concentration will develop skills in media production (e.g., shooting and editing audio and video, social media content creation) and media writing (e.g., journalism, screenwriting), as well as critical analysis of media content and its influence on society. The Mass Communication Concentration is also appropriate for students who aspire to enter media-related industries such as advertising and public relations. Flexible in nature, this 18 SCH concentration offers a large pool of course options and allows students to choose five courses (15 SCH) that align with their career goals and personal interests. Students in the Mass Communication Concentration are also required to complete a professional internship (for course credit) in their field of interest.

Required Concentration Course**3**

COMM 4370	Professional Internship
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Concentration Electives (choose five)**15**

COMM 1336	Video Production I
COMM 2303	Digital Audio Production I
COMM 2375	Introduction to Performance
COMM 2355	Communication, Globalization, International Media
COMM 1342	Voice and Diction
COMM 2300	Media Literacy
COMM 2371	Visual Communication
COMM 2305	Copy and Editing Production
COMM 3304	Digital Audio Production II
COMM 3321	Media Management
COMM 3365	Gender Communication
COMM 3366	Intercultural Communication
COMM 3371	Communication Technology

COMM 3372	Digital Video Production I
COMM 3373	Television Studio Production
COMM 3374	Principles of Advertising
COMM 3375	Principles of Public Relations
COMM 3385	Communication as Storytelling
COMM 4344	The Message: Hip Hop as Communication
COMM 4352	Communication Theory
COMM 4361	Political Communication
COMM 4370	Professional Internship ¹
COMM 4371	Voice and Performance
COMM 4372	Digital Video Production II
COMM 4373	Advanced Nonlinear Editing
COMM 4375	Advanced Performance
COMM 4379	Special Topics in Mass Communication ²
Total Hours	18

¹ May be repeated up to 6 SCH. COMM 4370 is a professional internship required of communication majors with a concentration in mass communication.

² May be repeated up to 6 SCH with different topics.

Bachelor of Arts in Communication Degree Sequence

Core: <https://catalog.pvamu.edu/universitycorecurriculum/>

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Communication Core		3 Communication Core	3
ENGL 1301		ENGL 1302	
American History Core		3 American History Core	3
Government/Political Science Core		3 Government/Political Science Core	3
POSC 2305		POSC 2306	
Life and Physical Sciences Core		3 Life and Physical Sciences Core	3
Component Area Option One Core		3 COMM 1307	3
Total		15 Total	15

Total Hours: 30

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Mathematics Core		3 Concentration Requirement Course	3
Language, Philosophy, and Culture Core		3 Creative Arts Core	3
Social and Behavioral Science Core		3 Component Area Option Two Core	3
COMM 1318		3 COMM Writing Course Requirement	3
COMM 2351		3 Minor Requirement I	3
Total		15 Total	15

Total Hours: 30

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Foreign Language I		3 Foreign Language II	3
COMM 3351		3 Concentration Requirement Course	3
Concentration Requirement Course		3 COMM 4350	3
Concentration Requirement Course		3 Minor Requirement III	3

Minor Requirement II	3 Minor Requirement IV	3
Total	15 Total	15

Total Hours: 30

Senior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
COMM 4353		3 COMM 4389	3
Minor Requirement V		3 Minor Requirement VI	3
Concentration Requirement Course		3 Concentration Requirement Course	3
Unrestricted Elective I		3 Unrestricted Elective III	3
Unrestricted Elective II		3 Unrestricted Elective IV	3
Total		15 Total	15

Total Hours: 30

Name	Unit
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Total Semester Credit Hours: 120

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

BA Communication

Degree Skills

1. Communicate ideas effectively to a variety of audiences
2. Utilize a variety of communication tools and styles
3. Conduct research, analyze data, and identify key findings

Concentration Skills

1. Produce audiovisual media content appropriate for various personal and professional needs
2. Work collaboratively to solve problems and/or deliver messages in a variety of formats
3. Utilize communication theory to solve real-world problems and provide useful insights in personal and professional settings

Co-curricular and Extracurricular Skills

1. Produce media content across a variety of platforms
2. Develop research-based arguments and engage in informed and civil debate

English, BA

Bachelor of Arts in English Degree Program Requirements

The English Program prepares students for a wide range of career and graduate studies opportunities through its emphases on critical and creative thinking, social and historical analysis, and advanced research and writing skills. With their highly adaptable skills and knowledge, recent English graduates have entered professions and graduate programs related to teaching and counseling, publishing and media production, legal studies, advertising and public relations, public policy and international relations, and much more.

While studying a wide range of literary periods, genres, and theories, English majors develop advanced communication skills and other qualities that will help them become leaders and innovators within their chosen professions, qualities like social and historical consciousness, emotional intelligence, and creative problem-solving. English majors can choose from the two concentrations described below: **English without Teacher Certification (EGWO)** and **English with Teacher Certification (TENL)**.

Complete Core Curriculum Listing at <https://catalog.pvamu.edu/universitycorecurriculum/>

Core Curriculum 42 Credit Hours

Communication		6
ENGL 1301	Freshman Composition I	

ENGL 1302	Freshman Composition II	
Mathematics (Select One)		3
Life and Physical Sciences (Select Two)		6
Language, Philosophy, and Culture (Select One) ¹		3
Creative Arts (Select One)		3
American History (Select Two)		6
Government/Political Science		6
POSC 2305	American Government	
POSC 2306	Texas Government	
Social and Behavioral Sciences (Select One)		3
Component Area Option One (Select One)		3
Component Area Option Two (Select One)		3
Foreign Language (Elementary level in same language)		6
Required English Courses		24
ENGL 2322	British Literature I	
ENGL 2323	British Literature II	
ENGL 2327	American Literature I	
ENGL 2328	American Literature II	
ENGL 3322	Advanced Grammar	
ENGL 3305	Survey of African-American Literature	
or ENGL 3306	Studies in African-American Literature	
or ENGL 3308	Literature of the African Diaspora	
ENGL 3315	Literary Theory and Criticism	
ENGL 4343	Special Topics in English	
Concentration (Select one from below)		48
Total Hours		120

¹ ENGL 2341, ENGL 2334, and ENGL 2331 are options for the core, but they may not be used to satisfy both core and major requirements.

English Without Teacher Certification Concentration (EGWO)

The EGWO concentration provides English majors with a flexible degree plan that allows them to develop a strong foundation in English language and literature while also giving them the freedom to develop additional skills and explore other academic fields. The three English electives allow majors to further develop their literary knowledge or develop valuable skills in creative and professional writing. Meanwhile, the minor and unrestricted electives allow them to craft a truly individualized and interdisciplinary program of study. Recent graduates have used the flexibility of the EGWO Concentration to gain employment in fields like media production and publishing, professional writing, marketing, and human resources. Others have entered graduate programs in English, Law, International Studies, Public Policy, Psychology and Counseling, and other fields. While English graduates in the EGWO concentration are not certified to teach, they are thoroughly prepared to enter external certification programs and pass the necessary certification exams. Many are fully certified to teach in ELAR (English Language Arts and Reading) or other fields within a few months of graduating.

EGWO Concentration Requirements

ENGL 4322	Shakespeare	3
or ENGL 4326	Toni Morrison	
English Electives (choose three ENGL courses at the 2000 level or above)		9
Minor Requirements ¹		18
Unrestricted Electives ²		18
Total Hours		48

¹ English majors in the EGWO concentration are required to select a minor of their choice. They must satisfy the catalog requirements for the selected minor.

² Unrestricted electives may be chosen from any area. If the selected minor is more than 18 SCH, unrestricted electives may be reduced.

English With Teacher Certification Concentration (TENL) ¹

The TENL concentration is less flexible than the EGWO concentration, but by the time students graduate they are fully certified for ELAR 7-12 teaching.

Recent graduates on the certification track have found ready employment in local school districts and have quickly distinguished themselves as talented educators. Many have gone on to receive graduate degrees in education or counseling, allowing them to become administrators or enter other specialized positions. Others have completed graduate work in English and other fields in order to qualify them to teach dual credit and college-level courses. The teacher certification requirements associated with the TENL concentration are administered through the Whitlowe R. Green College of Education, so students should consult an advisor in that college as soon as they choose the certification track.

TENL Concentration Requirements

ENGL 2325	Adolescent Literature	3
ENGL 2331	Survey of World Literature	3
ENGL 3302	Creative Writing Practices	3
ENGL 3304	Professional Writing for Electronic Media	3
RDNG 4363	Developmental Reading	3
RDNG 4365	Foundations of Reading Instruction	3
SPED 3300	Introduction to Exceptional Children	3
CUIN 3300	Educational Foundations	3
CUIN 3301	Educational Psychology	3
ENGL 4300	Studies in Teaching ELAR (Studies in Teaching ELAR)	3
ENGL 4322 or ENGL 4326	Shakespeare Toni Morrison	3
CUIN 4301	Instructional Methods and Classroom Management	3
CUIN 4682	Student Teaching Secondary II ²	6
Additional Foreign Language (Intermediate in same language)		3
Unrestricted Elective		3
Total Hours		48

¹ 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 in the Whitlowe R. Green College of Education (<https://www.pvamu.edu/education/>) for the current criteria for admission.

² Students may not enroll in other courses during the semester in which they are enrolled in CUIN 4682.

Bachelor of Arts in English - Without Teacher Certification Degree Sequence

Core: <https://catalog.pvamu.edu/universitycorecurriculum/>

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Communication Core		3 Communication Core	3
ENGL 1301		ENGL 1302	
American History Core		3 American History Core	3
Government/Political Science Core		3 Government/Political Science Core	3
POSC 2305		POSC 2306	
Mathematics Core		3 Life and Physical Sciences Core	3
Life and Physical Sciences Core		3 Language, Philosophy, and Culture Core	3
Total		15 Total	15

Total Hours: 30

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours
ENGL 2322		3 ENGL 2323	3
ENGL 2327		3 ENGL 2328	3
Social and Behavioral Sciences Core		3 Minor Requirement I	3

Creative Arts Core	3 Unrestricted Elective	3
Component Area Option One Core	3 Component Area Option Two Core	3
Total	15 Total	15

Total Hours: 30**Junior**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
ENGL 3315		3 ENGL 3305, 3306, or 3308	3
English Elective		3 ENGL 3322	3
Minor Requirement II		3 Minor Requirement III	3
Unrestricted Elective		3 Minor Requirement IV	3
Foreign Language I		3 Foreign Language II	3
Total		15 Total	15

Total Hours: 30**Senior**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
ENGL 4322 or 4326		3 ENGL 4343	3
English Elective		3 English Elective	3
Minor Requirement V		3 Minor Requirement VI	3
Unrestricted Elective		3 Unrestricted Elective	3
Unrestricted Elective		3 Unrestricted Elective	3
Total		15 Total	15

Total Hours: 30

Name	Unit
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Total Semester Credit Hours: 120

Bachelor of Arts in English - With Teacher Certification Degree Sequence

Core: <https://catalog.pvamu.edu/universitycorecurriculum/>**Freshman**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Communication Core		3 Communication Core	3
ENGL 1301		ENGL 1302	
American History Core		3 American History Core	3
Government/Political Science Core		3 Government/Political Science Core	3
POSC 2305		POSC 2306	
Mathematics Core		3 Life and Physical Sciences Core	3
Life and Physical Sciences Core		3 Language, Philosophy, and Culture Core	3
Total		15 Total	15

Total Hours: 30**Sophomore**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
ENGL 2322		3 ENGL 2323	3
ENGL 2327		3 ENGL 2328	3
ENGL 2331		3 Component Area Option One Core	3
Unrestricted Elective		3 ENGL 2325	3
Foreign Language I		3 Foreign Language II	3
Total		15 Total	15

Total Hours: 30

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
ENGL 3302		3 ENGL 3305, 3306, or 3308	3
ENGL 3315		3 ENGL 3322	3
ENGL 3304		3 ENGL 4343	3
Teacher Concentration Requirement		3 Teacher Concentration Requirement	3
Foreign Language III		3 Teacher Concentration Requirement	3
Total		15 Total	15

Total Hours: 30**Senior**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
ENGL 4322 or 4326		3 Student Teaching I	6
Teacher Concentration Requirement		3 Teacher Concentration Requirement	
Teacher Concentration Requirement		3	
Teacher Concentration Requirement		3	
Teacher Concentration Requirement		3	
Total		15 Total	6

Total Hours: 21

Total Semester Credit Hours 120

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

BA English***Degree Skills***

1. Critical thinking and creative problem-solving
2. Critical empathy (the ability to understand the experiences of others and apply that understanding to ethical decision-making)
3. Information literacy (the ability to find, evaluate, and use information effectively and ethically)
4. Rhetorical awareness (the ability to communicate effectively for different audiences and purposes using a variety of media)
5. Proofreading, editing, and formatting to produce polished written products
6. Oral and visual presentation

Concentration Skills

1. Teaching and training
2. Technical writing
3. Creative writing

Co-curricular and Extracurricular Skills

1. Adaptability/Flexibility
2. Tolerance to change and uncertainty

Department of Mathematics**Mission, Purpose and Goals****Mission**

The Department of Mathematics provides quality instruction, research and outreach programs in mathematics that produce independent learners equipped with problem solving and decision-making techniques necessary to meet the challenges of their chosen careers and function in the

mainstream of the communities in which they live. The department provides comprehensive educational opportunities and advancements to enrich the life of the students.

The department will build a solid foundation of growth, skills, and knowledge of mathematics. Our passion for educating tomorrow's leaders is supported by our desire to provide a seamless education experience.

The Department of Mathematics trains competent prospective mathematicians, engineers, scientists, mathematics teachers, and other mathematics based and/or related professionals with the knowledge-base necessary to perform successfully in graduate and professional schools as well as the workforce. Undergraduate and graduate programs promote student use of innovation and entrepreneurship in their research endeavors.

Purpose

The Department of Mathematics offers an innovative and comprehensive undergraduate program in mathematics from which a major may select one of two concentrations: applied mathematics or 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.

Goals

The Department of Mathematics will help students develop an appreciate for the beauty and utility mathematics has in academic studies, in the professional workforce, and in everyday life. Inherent in this is a departmental goal of helping students see and appreciate the beauty of mathematics, having students be able to apply mathematics in various settings, teaching students how to perform advanced mathematical computations, and working with students to help them communicate mathematical ideas and content orally and in writing. Students will also develop critical thinking skills, become citizens of the local, regional, and global arenas who understand how they can positively impact society, and they will be aware of careers their mathematical training have prepared them for.

Academic Standards

Mathematics majors are expected to maintain high standards of academic achievement. 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.

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. The student is also encouraged to take the Calculus Readiness test in the Department of Mathematics so that they may be exempted from taking prerequisite courses for MATH 2413, Calculus with Analytic Geometry I. (Please note: a student does not receive any course credit from passing the Calculus Readiness test, but only a waiver, in order to take MATH 2413.)

Prerequisite Requirement

All mathematics prerequisite courses must be passed with a grade of a "C" or higher.

Requirements for a Minor in Mathematics

MATH 2413	Calculus with Analytic Geometry I	4
MATH 2414	Calculus with Analytic Geometry II	4
MATH 2305	Discrete Mathematics	3
MATH 3401	Calculus III	4
Approved 3000 or 4000-level Courses		12
Total Hours		27

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 cumulative 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 4.0 in mathematics (including two courses in calculus), juniors and seniors with a minimum grade point average of 3.0 in mathematics, and a cumulative grade point average of at least 2.8, and graduate students in the department.

Courses

MATH 0010 Mathematics Basics Lab: 0 semester hours.

This course is designed to improve the student skills involving basic arithmetic computations to include integers, fractions, decimals, and percents. There will be a strong emphasis on solving and graphing linear equations as well as basic polynomial manipulations.

MATH 0021 Mathematics Non-course Based Option I: 0 semester hours.

This non-course based option is designed to provide individualized developmental mathematics instructions to students who did not successfully complete MATH 0313.

Prerequisites: MATH 0313 or MATH 0133.

MATH 0030 Comp Math Skills: 0 semester hours.

This course will enhance the student's performance in college level mathematics. It improves skills in solving quadratic equations, manipulating polynomials, radicals and exponential expressions. It develops a basic understanding of the mathematical functions and concepts necessary for successfully completing the college level course.

Prerequisites: TSI Math with a score of 347.

Co-requisites: MATH 1314, MATH 1332, PSYC 2317.

MATH 0132 Comprehensive Math Skills for Contemporary Algebra: 1 semester hour.

This course will enhance the student's performance in Contemporary College Algebra. It improves skills in solving linear and power equations, manipulating polynomial and exponential expressions, and graphing and interpreting two-variable equations. It develops an understanding of numeracy and the real number system; and the basic mathematical functions and concepts necessary for successfully completing the Contemporary College Algebra course. A co-requisite course for those students who have not passed TSIA Math, to be taken in conjunction with Contemporary College Algebra.

Co-requisite: MATH 1332.

MATH 0135 Comprehensive Math Skills for College Algebra: 1 semester hour.

This course will enhance the student's performance in College Algebra. It improves skills in solving quadratic equations, manipulating polynomials, radicals and exponential expressions. It develops a basic understanding of the mathematical functions and concepts necessary for successfully completing the College Algebra course. A co-requisite course for those students who have not passed TSIA Math, to be taken in conjunction with College Algebra.

Co-requisite: MATH 1314.

MATH 0311 Comprehensive Math Skills for College Algebra: 3 semester hours.

This course is designed to present a careful and guided review of the basic mathematical concepts to improve and strengthen the student fundamental understanding of mathematics. The topics will include solving and graphing linear equations and inequalities, solving linear systems, determining the equation of a line and slope of lines. The course will also cover manipulation of polynomials to include factoring, ratios, solving rational equations and geometric applications.

Prerequisites: MATH 0010 or MATH 0100 or TSI Math with a score of 336.

Co-requisite: MATH 1314.

MATH 0312 Basic Math II: 3 semester hours.

This course is an introductory course to Algebra designed to make the transition to College Algebra more successful. It provides the student with background knowledge in fundamental algebra and skills in mathematics. It will concentrate on developing skills in solving and graphing linear equations, simplifying and factoring polynomials, solving quadratic equations and combining and simplifying rational expressions and exponents.

MATH 0313 Pre-Algebra: 3 semester hours.

This course is designed to make the transition to College Algebra more successful. Topics include advanced algebraic operations, factoring with an emphasis on rational, radical, and quadratic equations. Students will be introduced to functions with emphasis on function evaluation, graphs, composition, and inverse.

Prerequisites: MATH 0311 or MATH 0113 or (TSI Math with a score of 336 and TSI DIAG ElemAlg with a score of 06).

MATH 1314 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 1332/1103 and MATH 1314/1113. (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 1316 Trigonometry: 3 semester hours.

Trigonometric functions, radian, logarithms, functions of composite angles, identities, and trigonometric equations.

Prerequisites: MATH 1314 or MATH 1113.

MATH 1324 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 1314 or MATH 1113) or (MATH 1332 or MATH 1103) or (MATH 1511 or MATH 1115).

MATH 1325 Calculus-Business, Life and Social Sciences: 3 semester hours.

Derivatives, curves, sketching, and optimization techniques for differentiation. Logarithms and exponential functions with applications, integral techniques and application of integrals, and multivariate calculus.

Prerequisites: MATH 1324 or MATH 1153.

MATH 1332 Contemporary College Algebra: 3 semester hours.

Intended for Non STEM (Science, Technology, Engineering, and Mathematics) majors. Topics include introductory treatments of sets and logic, financial mathematics, probability and statistics with appropriate applications. Number sense, proportional reasoning, estimation, technology, and communication should be embedded throughout the course. Additional topics may be covered. Cannot receive credit for both MATH 1332/1103 and MATH 1314/1113.

MATH 1342 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 1314 or MATH 1113) or (MATH 1332 or MATH 1103) or (MATH 1511 or MATH 1115).

MATH 1511 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 2305 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 2413 or MATH 1124.

MATH 2316 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 1314 or MATH 1113) or (MATH 1332 or MATH 1103).

MATH 2318 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 1314 or MATH 1113) or (MATH 1332 or MATH 1103).

MATH 2320 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 2414 or MATH 2024.

MATH 2413 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 or MATH 1314) and (MATH 1123 or MATH 1316)) or MATH 1115 or MATH 1511.

MATH 2414 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 2413 or MATH 1124.

MATH 3300 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 2316 or MATH 2163.

MATH 3301 Modern Algebra: 3 semester hours.

Number theory, groups, rings, integral domains, and fields.

Prerequisites: MATH 2305 or MATH 2053.

MATH 3302 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 2414 or MATH 2024.

MATH 3307 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 2414 or MATH 2024.

MATH 3310 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 2413 or MATH 1124) or (MATH 1325 or MATH 2153).

MATH 3316 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 2316 or MATH 2163.

MATH 3319 Introduction to MATLAB and PHYTHON: 3 semester hours.

Introduces the basic concepts of programming and problem-solving using MATLAB and Python. Topics include data types, data input/output, control structures, functions, scripts, debugging, data visualization techniques, and symbolic computation, data simulation, and basic algorithms. Programming projects related to mathematical and statistical applications and elementary numerical methods.

Prerequisites: MATH 2413 or MATH 1124.

MATH 3361 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 interval estimation, hypothesis testing, p-values, simple linear regression, analysis of categorical data, applications in biology and biomedicine.

Prerequisites: MATH 2413 or MATH 1124.

MATH 3401 Calculus III: 4 semester hours.

Calculus of functions of several variables, calculus of vector valued functions, partial differentiation, multiple integrals.

Prerequisites: MATH 2414 or MATH 2024.

MATH 3568 Math for Engineers: 5 semester hours.

Matrices are determinants, Vector Spaces, Eigenvalues and Eigenvectors, Power Series, Laplace Transform, Fourier Series and Orthogonal Functions; Multivariate Functions: Sample Space, Random Variables, Probability Distributions, Moments of a Random Variable, Sum of Independent Variables, Conditional Probability, Law of Large Numbers, Central limit Theorem, Inference Concerning Means, Variances and proportions, Analysis of Variance, Statistical Content of Quality Improvement Programs, Reliability, Probabilistic Description of Stochastic Processes, Poisson Process, Simple Queuing Models in Engineering.

Prerequisites: MATH 2320 or MATH 2043.

MATH 3599 Independent Study: 1-5 semester hour.

Reading, research, and or field work on selected topics.

MATH 4100 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 4190 LaTeX for Mathematics and Science: 1 semester hour.

1 semester hour. This course is an introduction to the LaTeX software system, which is used for document preparation in mathematics, science, and engineering. Students will learn how to use LaTeX to typeset documents such as homework, articles, presentation slides, and an academic poster. Students will develop enough familiarity with LaTeX so that they are able to prepare many technical documents.

Prerequisites: MATH 2413 or MATH 1124.

MATH 4300 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 1316 or MATH 1123.

MATH 4305 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 4306 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 3307 or MATH 3073) and (COMP 1315 or COMP 1013).

MATH 4308 Advanced Calculus I: 3 semester hours.

Number sequences, limits, sequential functions, properties of continuous functions, and mean value theorem and Riemann Integral.

Prerequisites: MATH 2320 or MATH 2043 and (MATH 3401 or MATH 3014).

MATH 4317 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.

Prerequisites: MATH 2320 or MATH 2043.

MATH 4389 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 4599 Independent Study: 1-5 semester hour.

Reading, research, and/or field work on selected topics.

MATH 5399 Independent Study: 3 semester hours.

Course description will vary according to course chosen for independent study.

Undergraduate

Purpose and Goals

The Department of Mathematics offers a Bachelor of Science in Mathematics. Through an interdisciplinary program, experiential learning opportunities, and research partnerships, the Department of Mathematics continues to be an innovative force in undergraduate education. Our curriculum equips students with critical thinking, analytical skills and high quality mathematics content knowledge and prepares them to make an impact on the global community. The department provides a quality instruction, research and outreach program in mathematics that produces independent learners equipped with the problem solving and decision-making techniques necessary to meet the challenges of their chosen careers. The department provides comprehensive educational opportunities and advancements to enrich the life of its students.

Mathematics, BS

Bachelor of Science in Mathematics Degree Program Requirements

Complete Core Curriculum Listing at <https://catalog.pvamu.edu/universitycorecurriculum/>

Core Curriculum 42 Credit Hours

Communication		6
ENGL 1301	Freshman Composition I	
ENGL 1302	Freshman Composition II	
Mathematics		3
MATH 1316	Trigonometry	
Life and Physical Sciences (Select Two)		6
Language, Philosophy, and Culture (Select One)		3
Creative Arts (Select One)		3
American History (Select Two)		6
Government/Political Science		6
POSC 2305	American Government	
POSC 2306	Texas Government	
Social and Behavioral Sciences (Select One)		3
Component Area Option One (Select One)		3
Component Area Option Two (Select One)		3
Major Requirements		
MATH 2413	Calculus with Analytic Geometry I	4
MATH 2414	Calculus with Analytic Geometry II	4
MATH 2320	Differential Equations	3
MATH 2305	Discrete Mathematics	3
MATH 3301	Modern Algebra	3
MATH 3401	Calculus III	4
MATH 3302	Probability and Statistics	3

MATH 3307	Linear Algebra	3
MATH 4100	Mathematics Colloquium	1
MATH 4306	Numerical Analysis	3
MATH 4308	Advanced Calculus I	3
Approved 3000 or 4000 Level Mathematics Courses		6
Other Requirements		
English (Writing) ¹		3
Concentration (Select one from below)		35
Total Hours		120

Without Teacher Certification Concentration

MATH 4389	Mathematics Capstone Course	3
Computer Science Electives ^{2,3}		11
General Electives		21
Total Hours		35

With Teacher Certification Concentration

MATH 4305	Mathematics Teaching Capstone Course	3
CUIN 3300	Educational Foundations	3
CUIN 3301	Educational Psychology	3
CUIN 4310	Instructional Planning and Assessment	3
CUIN 4311	Instructional Methodology and Classroom Management	3
CUIN 4682	Student Teaching Secondary II	6
Computer Science Elective ^{2,3}		3
Foreign Language (one language)		6
General Electives		5
Total Hours		35

- ¹ Any ENGL Writing course can be taken to satisfy the English requirement.
- ² Any COMP course can be taken to satisfy the Computer Science requirement. Other select courses may also be used to satisfy the Computer Science requirement. These courses can be verified in consultation with your mathematics advisor.
- ³ 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 Computer Science Elective area.

Bachelor of Science in Mathematics-With Teacher Certification Degree Sequence

Core: <https://catalog.pvamu.edu/universitycorecurriculum/>

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Communication Core		3 Communication Core	3
ENGL 1301		ENGL 1302	
Mathematics Core		3 MATH 2413	4
MATH 1316		Life and Physical Sciences Core	3
Life and Physical Sciences Core		3 American History Core	3
American History Core		3 Social and Behavioral Science Core	3
Creative Arts Core		3	
Total		15 Total	16

Total Hours: 31

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Language, Philosophy, and Culture Core		3 MATH 2320	3
Component Area Option One Core		3 Computer Science Elective	3

MATH 2414	4 Component Area Option Two Core	3
Government/Political Science Core	3 Government/Political Science Core	3
POSC 2305	POSC 2306	
MATH 2305	3 Elective	3
	Elective	2
Total	16 Total	17

Total Hours: 33**Junior**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
MATH 3307		3 MATH 3301	3
MATH 3401		4 3000 or 4000 Level MATH Course	3
English Writing Requirement		3 MATH 3302	3
CUIN 3300		3 CUIN 3301	3
Foreign Language Requirement		3 Foreign Language Requirement	3
		MATH 4306	3
Total		16 Total	18

Total Hours: 34**Senior**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
MATH 4100		1 CUIN 4682	6
MATH 4308		3	
3000 or 4000 Level MATH Course		3	
MATH 4305		3	
CUIN 4310		3	
CUIN 4311		3	
Total		16 Total	6

Total Hours: 22

Name	Unit
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Total Semester Credit Hours: 120

BS Mathematics Without Teacher Certification<https://catalognext.pvamu.edu/universitycorecurriculum/> (p. 553)**Freshman**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Communication Core		3 Communication Core	3
ENGL 1301		ENGL 1302	
Mathematics Core		3 MATH 2413	4
MATH 1316		Life and Physical Sciences Core	3
Life and Physical Sciences Core		3 American History Core	3
American History Core		3 Social and Behavioral Sciences Core	3
Creative Arts Core		3	
Total		15 Total	16

Total Hours: 31**Sophomore**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Language, Philosophy, and Culture Core		3 Elective	3
Component Area Option One Core		3 MATH 2320	3
MATH 2414		4 Computer Science Elective	4

Government/Political Science Core	3 Government/Political Science Core	3
POSC 2305	POSC 2306	
MATH 2305	3 Component Area Option Two Core	3
Total	16 Total	16

Total Hours: 32

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
MATH 3307		3 MATH 3301	3
MATH 3401		4 3000 or 4000 Level MATH Course	3
English Writing Requirement		3 MATH 3302	3
Computer Science Elective		3 Computer Science Elective	4
Elective		3 Elective	3
Total		16 Total	16

Total Hours: 32

Senior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
MATH 4100		1 MATH 4306	3
MATH 4308		3 MATH 4389	3
3000 or 4000 Level MATH Course		3 Elective	3
Elective		3 Elective	3
Elective		3	
Total		13 Total	12

Total Hours: 25

Name	Unit
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Total Semester Credit Hours: 120

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

BS Mathematics

Degree Skills

1. Ability to use logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems
2. Ability to choose the right mathematical methods or formulas to solve a problem
3. Ability to communicate effectively in the workplace, both through oral and written form, and transmit mathematical knowledge in various forms

Concentration Skills

1. Conduct oral and written communication in the context of mathematics instruction
2. Apply mathematical content knowledge and pedagogical content knowledge, and critical thinking to instructional design and delivery
3. Proficient use of essential technological teaching tools

Co-curricular and Extracurricular Skills

1. Ability to effectively communicate mathematical content in non-academic settings
2. Ability to work and communicate in groups
3. Ability to engage in logical and critical thinking among non-mathematicians

Department of Music and Theater

Department of Music and Theater

The Department of Music and Theater is committed to both degree-producing and extra-curricular arts programs. The Music and Theater 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.

Bachelor of Arts in 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.

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: 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 in a 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 seminars 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):

MUSC 1306	Music in Contemporary Life ¹	3
MUSC 2333	Afro-American Music ¹	3
MUSC 1321	Fundamentals of Music ¹	3
MUSC 2334	Survey of World Music ¹	3
MUSC 1111	University Band	1
All of the following courses require an audition for placement		
MUSC 1112	University Choir	1
MUSC 1113	Chamber Vocal Ensemble	1

MUSC 1114	Jazz Band	1
MUSC 1115	Brass Ensemble	1
MUSC 1110	University Orchestra	1
MUSC 1119	Percussion Ensemble	1
MUSC 1118	Chamber Music	1
MUSC 1177	Wind Ensemble	1
MUSC 1178	Wind Ensemble	1
MUSC 2111	University Band	1
MUSC 2112	University Choir	1
MUSC 2119	University Orchestra	1
MUSC 2177	Wind Ensemble	1
MUSC 2178	Wind Ensemble	1
MUSC 3111	University Band	1
MUSC 3112	University Choir	1
MUSC 3116	University Orchestra	1
MUSC 3177	Wind Ensemble	1
MUSC 3178	Wind Ensemble	1
MUSC 4111	University Band	1
MUSC 4112	University Choir	1
MUSC 4116	University Orchestra	1

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. Private lesson courses which earn one semester credit hour (1 SCH) are primarily for majors following the Bachelor of Arts in Music - EC-12 Teacher Certification curriculum. Lessons that earn 2 SCH are for the Bachelor of Arts in Music - General. Lessons that earn 3 SCH are for the Bachelor of Arts in Music - Performance. Music minors typically take lessons of 1 or 2 SCH credit hours (see music minor requirements). Performances in seminar and performance exams (juries) are required for all majors taking applied music in addition to the capstone recital requirements for each concentration.

Piano	Voice	Brass	Woodwind	Percussion	Strings
MUSC 1153, MUSC 1251, MUSC 1351	MUSC 1165, MUSC 1263, MUSC 1361	MUSC 1171, MUSC 1271, MUSC 1371	MUSC 1181, MUSC 1281, MUSC 1381	MUSC 1191, MUSC 1291, MUSC 1391	MUSC 1136, MUSC 1236
MUSC 2151, MUSC 2251, MUSC 2351	MUSC 2165, MUSC 2263, MUSC 2361	MUSC 2171, MUSC 2271, MUSC 2371	MUSC 2181, MUSC 2281, MUSC 2381	MUSC 2191, MUSC 2291, MUSC 2391	MUSC 2136, MUSC 2236

MUSC 3151, MUSC 3251, MUSC 3351	MUSC 3165, MUSC 3261, MUSC 3361,	MUSC 3171, MUSC 3271, MUSC 3371	MUSC 3181, MUSC 3281, MUSC 3381	MUSC 3191, MUSC 3291, MUSC 3391	MUSC 3136, MUSC 3236
MUSC 4151, MUSC 4251, MUSC 4351	MUSC 4165, MUSC 4361, MUSC 4363	MUSC 4171, MUSC 4271, MUSC 4371	MUSC 4181, MUSC 4281, MUSC 4381	MUSC 4191, MUSC 4291, MUSC 4391	MUSC 4136, MUSC 4236

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) credit hours is required for degree completion. All degree programs require eight semesters of large ensemble credits as listed below. Other music departments ensembles Brass Ensemble, Chamber Music, Jazz Band, Percussion Ensemble, Vocal Chamber Music may be taken for elective credit, not to replace large ensemble credit.

Choir	Band	Wind Ensemble	Orchestra
MUSC 1112	MUSC 1111	MUSC 1177 - MUSC 1178	MUSC 1110
MUSC 2112	MUSC 2111	MUSC 2177 - MUSC 2178	MUSC 2119
MUSC 3112	MUSC 3111	MUSC 3177 - MUSC 3178	MUSC 3116
MUSC 4112	MUSC 4111	MUSC 4177 - MUSC 4178	MUSC 4116

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:	6	
MUSC 1325 & MUSC 1326	Musicianship I and Musicianship II	
MUSC 1311 & MUSC 1312	Music Theory I and Music Theory II	
MUSC 1307 or MUSC 2333	Music Literature Afro-American Music	3
Ensemble (Each ensemble course earns 1 SCH per semester)	4	
Piano ¹	2	
Total Hours	19	

¹ 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		
DRAM 1300	Introduction to Acting	3
DRAM 1310	Introduction to Theatre	3
DRAM 1311	Introduction to Theatre Technology	3
DRAM 1120	Theatre Practicum I	1
DRAM 1121	Theatre Practicum II	1
DRAM 2120	Theatre Practicum III	1
DRAM 2121	Theatre Practicum	1
Electives		
DRAM 1330 or DRAM 1352	Stagecraft Intermediate Acting	3

DRAM 2322	African American Theatre II	3
Total Hours		19

Minor in Dance

Dance Minor

DANC 1103	Modern Dance I	1
DANC 1104	Folk and Ballroom Dance I	1
DANC 1110	Tap Dance I	1
DANC 1117	Modern Jazz I	1
DANC 1119	Ballet I	1
DANC 1126	Body Mechanics and Rhythmic Activities	1
DRAM 1322	Stage Movement	3
DANC 2101	Modern Dance II	1
DANC 2202	Fundamentals of Dance	2
DANC 2107	Modern Jazz II	1
DANC 2115	Ballet II	1
DANC 4202	Choreography	2
DANC 4203	Performance	2
Total Hours		18

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.

Dance Courses

DANC 1103 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 or coeducational.

DANC 1104 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 1110 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 1117 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 1119 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 1126 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 2101 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 2102 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 2106 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 2107 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 2115 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 2202 Fundamentals of Dance: 2 semester hours.

Application of theory and fundamental skills in dance.

DANC 4202 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 1103 or DANC 1031) and (DANC 1119 or DANC 1191) and (DANC 2202 or DANC 2022).

DANC 4203 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 1103 or DANC 1031) and (DANC 1119 or DANC 1191) and (DANC 2202 or DANC 2022).

Drama Courses

DRAM 1120 Theatre Practicum I: 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 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 1300 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 1310 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 1311 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 1322 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 1330 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 1352 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 1300 or DRAM 1003.

DRAM 2120 Theatre Practicum III: 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 211 I. 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 2322 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 3324 Directing: 3 semester hours.

A basic course in stage direction, including play and character analysis, ground plans, movement, and business. Each student is required to do a detailed prompt book for a one-set play. Each student is required to direct a one-act play. Provides instruction for prospective teachers.

Music Courses

MUSC 1110 University Orchestra: 1 semester hour.

An ensemble devoted to the performance of orchestral music.

MUSC 1111 University Band: 1 semester hour.

An ensemble devoted to the performance of band music.

MUSC 1112 University Choir: 1 semester hour.

An ensemble devoted to the performance of choral music.

MUSC 1113 Chamber Vocal Ensemble: 1 semester hour.

The study of Music for vocal ensembles.

Prerequisites: (MUSC 1112 (may be taken concurrently) or MUSC 1121 (may be taken concurrently)) or (MUSC 2112 (may be taken concurrently) or MUSC 2121 (may be taken concurrently)) or (MUSC 3112 (may be taken concurrently) or MUSC 3121 (may be taken concurrently)) or (MUSC 4112 (may be taken concurrently) or MUSC 4121 (may be taken concurrently)).

MUSC 1114 Jazz Band: 1 semester hour.

An ensemble devoted to the study and performance of literature written for jazz band.

MUSC 1115 Brass Ensemble: 1 semester hour.

The study and performance of literature written for brass instruments.

MUSC 1116 Sight Singing and Ear Training I: 1 semester hour.

The development of music reading and aural comprehension. Melodic and harmonic diction.

Co-requisite: MUSC 1311.

MUSC 1117 Sight Singing and Ear Training II: 1 semester hour.

The development of music reading and aural comprehension. Melodic and harmonic diction.

Prerequisites: MUSC 1116 or MUSC 1211.

Co-requisite: MUSC 1312.

MUSC 1118 Chamber Music: 1 semester hour.

The study, rehearsal, and performance of instrumental literature for small ensemble.

MUSC 1119 Percussion Ensemble: 1 semester hour.

The study and performance of literature written for percussion instruments.

MUSC 1136 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 1153 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 1155 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 1156 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 1160 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 1164 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 1165 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 1170 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 1177 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 1178 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 1180 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 1191 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 1236 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 1251 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 1260 Voice: 2 semester hours.

The study of applied voice for performance majors. Freshman Level 1 2, private lesson. Required seminar performances.

MUSC 1261 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 1262 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 1271 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 1281 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 1291 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 1303 Fundamentals of Music: 3 semester hours.

An introduction to the basic materials of music.

MUSC 1306 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 1307 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 1311 Music Theory I: 3 semester hours.

The study of diatonic harmony in tonal music. Keyboard application and aural comprehension of materials are emphasized.
Co-requisite: MUSC 1112.

MUSC 1312 Music Theory II: 3 semester hours.

Continued study of diatonic harmony in tonal music. Keyboard application and aural comprehension of materials are emphasized.
Prerequisites: MUSC 1311 or MUSC 1233.
Co-requisite: MUSC 1117.

MUSC 1321 Fundamentals of Music: 3 semester hours.

An introduction to the basic materials of music.

MUSC 1325 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 1326 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 1341 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 1351 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 1353 Class Piano: 3 semester hours.

Beginning piano studies through group instruction.

MUSC 1354 Class Piano: 3 semester hours.

Beginning piano studies through group instruction.

MUSC 1360 Voice: 3 semester hours.

The study of applied voice for performance majors. Freshman Level 1 2, private lesson. Required seminar performances.

MUSC 1371 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 1381 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 1391 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 2112 University Choir: 1 semester hour.

An ensemble devoted to the performance of choral music.

MUSC 2116 Sight Singing III: 1 semester hour.

The development of reading and aural comprehension of music. Melodic and harmonic dictation.

Prerequisites: MUSC 1117 or MUSC 1221.

Co-requisite: MUSC 2311.

MUSC 2117 Sight Singing IV: 1 semester hour.

The development of reading and aural comprehension of music. Melodic and harmonic dictation.

Prerequisites: MUSC 2116 or MUSC 2211.

Co-requisite: MUSC 2312.

MUSC 2119 University Orchestra: 1 semester hour.

An ensemble devoted to the performance of orchestral music.

MUSC 2136 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 1136 or MUSC 1361.

MUSC 2141 String Instruments: 1 semester hour.

The study of stringed instruments through playing experiences in a group.

MUSC 2142 Brass Instruments: 1 semester hour.

The study of brass instruments through playing experiences in a group.

MUSC 2143 Woodwind Instruments: 1 semester hour.

The study of woodwind instruments through playing experiences in a group.

MUSC 2144 Percussion Instruments: 1 semester hour.

The study of percussion instruments through playing experiences in a group.

MUSC 2151 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 1153 or MUSC 1531.

MUSC 2152 Piano: 1 semester hour.

Major and minor scales in two octaves for same 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.

MUSC 2155 Functional Piano III: 1 semester hour.

A continuation of functional keyboard skills for music majors. Not for piano majors.

Prerequisites: (MUSC 1155 or MUSC 1551) and (MUSC 1156 or MUSC 1561).

MUSC 2156 Functional Piano IV: 1 semester hour.

A continuation of functional keyboard skills for music majors. Not for piano majors.

Prerequisites: MUSC 2155 or MUSC 2551.

MUSC 2160 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 2162 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 2165 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 1165 or MUSC 1651.

MUSC 2171 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 or MUSC 1170.

MUSC 2177 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 2178 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 2180 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 or MUSC 1180.

MUSC 2191 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 1191 or MUSC 1911.

MUSC 2236 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 1236 or MUSC 1362.

MUSC 2251 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 1251 or MUSC 1512.

MUSC 2263 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 or MUSC 1260.

MUSC 2271 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 1271 or MUSC 1712.

MUSC 2291 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 1291 or MUSC 1912.

MUSC 2311 Music Theory III: 3 semester hours.

The study of chromatic harmony in tonal music. Keyboard application, analysis, and aural comprehension of materials are emphasized.

Prerequisites: MUSC 1312 or MUSC 1243.

Co-requisite: MUSC 2116.

MUSC 2312 Music Theory IV: 3 semester hours.

The study of chromatic harmony in tonal music. Keyboard application, analysis, and aural comprehension of materials are emphasized.

Prerequisites: MUSC 2311 or MUSC 2213.

Co-requisite: MUSC 2117.

MUSC 2333 Afro-American Music: 3 semester hours.

A survey of historical developments in Afro-American music.

MUSC 2334 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 2363 Voice: 3 semester hours.

The study of applied voice for performance majors. Freshman Level 1 2, private lesson. Required seminar performances.

Prerequisites: MUSC 1361 or MUSC 1613.

MUSC 2371 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 1371 or MUSC 1713.

MUSC 2381 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 1381 or MUSC 1813.

MUSC 2391 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 1391 or MUSC 1913.

MUSC 3111 University Band: 1 semester hour.

An ensemble devoted to the performance of band music.

MUSC 3112 University Choir: 1 semester hour.

An ensemble devoted to the performance of choral music.

MUSC 3116 University Orchestra: 1 semester hour.

An ensemble devoted to the performance of orchestral music.

MUSC 3136 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 2136 or MUSC 2361.

MUSC 3151 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 2151 or MUSC 2511.

MUSC 3165 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 2165 or MUSC 2651.

MUSC 3171 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 2171 or MUSC 2711.

MUSC 3177 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 3178 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 3182 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 2181 or MUSC 2811.

MUSC 3191 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 2191 or MUSC 2911.

MUSC 3220 Analysis of Music: 2 semester hours.

An introduction to the techniques of musical analysis as applied to different forms of music.

Prerequisites: MUSC 2322 or MUSC 2223.

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 or MUSC 3220.

MUSC 3236 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 2236 or MUSC 2362.

MUSC 3246 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 3247 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 3251 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 2251 or MUSC 2512.

MUSC 3261 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 2263 or MUSC 2632.

MUSC 3263 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 3271 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 2271 or MUSC 2712.

MUSC 3281 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.

MUSC 3291 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 2291 or MUSC 2912.

MUSC 3324 Counterpoint: 3 semester hours.

The study of the technique of counterpoint through the writing of original examples.
Prerequisites: MUSC 2312 or MUSC 2223.

MUSC 3331 Music History: 3 semester hours.

A study of musical styles, forms, and developments in western music from antiquity through the baroque period.
Prerequisites: MUSC 1307 or MUSC 2323.

MUSC 3332 Music History: 3 semester hours.

A study of musical styles, forms, and developments in Western music from 1750 to the present.
Prerequisites: MUSC 3331 or MUSC 3313.

MUSC 3360 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 or MUSC 2363.

MUSC 3371 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 2371 or MUSC 2713.

MUSC 3381 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 2381 or MUSC 2813.

MUSC 3391 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 2391 or MUSC 2913.

MUSC 3399 Independent Study: 1-3 semester hour.

Readings, research, applied study, and/or field work on special topics in music.

MUSC 4111 University Band: 1 semester hour.

An ensemble devoted to the performance of band music.

MUSC 4112 University Choir: 1 semester hour.

An ensemble devoted to the performance of choral music.

MUSC 4116 University Orchestra: 1 semester hour.

An ensemble devoted to the performance of orchestral music.

MUSC 4136 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 3136 or MUSC 3361.

MUSC 4151 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 3151 or MUSC 3511.

MUSC 4165 Voice: 1 semester hour.

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.

Prerequisites: MUSC 3165 or MUSC 3651.

MUSC 4171 Brass: 1 semester hour.

Senior 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 3171 or MUSC 3711.

MUSC 4177 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 4178 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 4180 Woodwinds: 1 semester hour.

Senior 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 3811 or MUSC 3182.

MUSC 4191 Percussion: 1 semester hour.

Senior 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 3191 or MUSC 3911.

MUSC 4201 Conducting: 2 semester hours.

The study of basic conducting techniques. A general conducting course.

MUSC 4202 Choral Conducting: 2 semester hours.

The study of choral conducting techniques.

Prerequisites: MUSC 4012 or MUSC 4301.

MUSC 4203 Instrumental Conducting: 2 semester hours.

The study of instrumental conducting techniques.

Prerequisites: MUSC 4201 or MUSC 4012.

MUSC 4221 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 4223 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 2312 or MUSC 2223.

MUSC 4231 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 4236 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 3236 or MUSC 3362.

MUSC 4251 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 3251 or MUSC 3512.

MUSC 4256 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 4261 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 3216 or MUSC 3612.

MUSC 4271 Brass: 2 semester hours.

Senior 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 3271 or MUSC 3712.

MUSC 4281 Woodwinds: 2 semester hours.

Senior 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 3281 or MUSC 3812.

MUSC 4351 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.

MUSC 4360 Voice: 3 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 3361 or MUSC 3613.

MUSC 4363 Vocal Pedagogy: 3 semester hours.

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.

MUSC 4371 Brass: 3 semester hours.

Senior 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 3317 or MUSC 3713.

MUSC 4381 Woodwinds: 3 semester hours.

Senior 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 3381 or MUSC 3813.

MUSC 4391 Percussion: 3 semester hours.

Senior 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 3391 or MUSC 3913.

MUSC 4399 Independent Study: 1-3 semester hour.

Readings, research and/or field work on selected topics.

Department of Music and Theater, Undergraduate

Purpose and Goals

The Department of Music and Theater offers a Bachelor of Arts in Music, which is accredited by the National Association of Schools of Music. The education curriculum prepares music majors for the teaching profession and for certification to teach EC-12 in the state of Texas. The performance curriculum prepares students for a career in performance in their respective performance areas. The general music degree is a music major in combination with a minor in another field of study. All curricula prepares students for advanced studies at the graduate level. In addition, the department offers courses for non-majors, some of which satisfy common core requirements. All music ensembles are open to non-majors by audition.

Music, BA

Bachelor of Arts in Music Degree Requirements

Complete Core Curriculum Listing at <https://catalog.pvamu.edu/universitycorecurriculum/>

Core Curriculum 42 Credit Hours

Communication (Select Two)	6
Mathematics (Select One)	3
Life and Physical Sciences (Select Two)	6
Language, Philosophy, and Culture (Select One)	3
Creative Arts (Select One)	3

American History (Select Two)		6
Government/Political Science		6
POSC 2305	American Government	
POSC 2306	Texas Government	
Social and Behavioral Sciences (Select One)		3
Component Area Option One (Select One)		3
Component Area Option Two (Select One)		3
Major Requirements		
MUSC 1116	Sight Singing and Ear Training I	1
MUSC 1117	Sight Singing and Ear Training II	1
MUSC 1311	Music Theory I	3
MUSC 1312	Music Theory II	3
MUSC 1341	Music Technology	3
MUSC 2116	Sight Singing III	1
MUSC 2117	Sight Singing IV	1
MUSC 2311	Music Theory III	3
MUSC 2312	Music Theory IV	3
MUSC 1307	Music Literature	3
MUSC 3220	Analysis of Music	2
MUSC 3222	Analysis of Music (Analysis II)	2
MUSC 3331	Music History	3
MUSC 3332	Music History	3
MUSC 4202	Choral Conducting ¹	2
or MUSC 4203	Instrumental Conducting	
Large Ensemble: (Select one course from each group below according to your area of focus and take each course twice) ¹		8
MUSC 1111	University Band (2 hours)	
or MUSC 1112	University Choir	
or MUSC 1110	University Orchestra	
or MUSC 1177	Wind Ensemble	
or MUSC 1178	Wind Ensemble	
MUSC 2111	University Band (2 hours)	
or MUSC 2112	University Choir	
or MUSC 2119	University Orchestra	
or MUSC 2177	Wind Ensemble	
or MUSC 2178	Wind Ensemble	
MUSC 3111	University Band (2 hours)	
or MUSC 3112	University Choir	
or MUSC 3116	University Orchestra	
or MUSC 3177	Wind Ensemble	
or MUSC 3178	Wind Ensemble	
MUSC 4111	University Band (2 hours)	
or MUSC 4112	University Choir	
or MUSC 4116	University Orchestra	
or MUSC 4177	Wind Ensemble	
or MUSC 4178	Wind Ensemble	
Concentration: Select one from the concentrations below		36
Total Hours		120
General Voice Concentration		
MUSC 2162	French Diction/Song Literature	1
MUSC 2160	German Diction/Song Literature	1
MUSC 1160	Italian Diction/Song Literature	1

MUSC 1164	English Diction/Song Literature	1
Applied Music: Take each course below twice		14
MUSC 1165	Voice	
MUSC 2263	Voice	
MUSC 3261	Voice	
MUSC 4261	Voice	
Minor ²		18
Total Hours		36

General-Piano Concentration

Applied Music: Take each course below twice		16
MUSC 1251	Piano	
MUSC 2251	Piano	
MUSC 3251	Piano	
MUSC 4251	Piano	
Music Electives		2
Minor ²		18
Total Hours		36

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): ¹		16
MUSC 1236	Strings	
or MUSC 1271	Brass	
or MUSC 1281	Woodwinds	
or MUSC 1291	Percussion	
MUSC 2236	Strings	
or MUSC 2271	Brass	
or MUSC 2291	Percussion	
MUSC 3236	Strings	
or MUSC 3271	Brass	
or MUSC 3281	Woodwinds	
or MUSC 3291	Percussion	
MUSC 4236	Strings	
or MUSC 4271	Brass	
or MUSC 4281	Woodwinds	
Music Electives		2
Minor		18
Total Hours		36

Performance-Voice Concentration

MUSC 2162	French Diction/Song Literature	1
MUSC 2160	German Diction/Song Literature	1
MUSC 1160	Italian Diction/Song Literature	1
MUSC 1164	English Diction/Song Literature	1
MUSC 3324	Counterpoint	3
MUSC 3263	Opera	2
MUSC 4363	Vocal Pedagogy	3
Applied Music: Take each course below twice		24
MUSC 1360	Voice	
MUSC 2363	Voice	
MUSC 3360	Voice	

MUSC 4360	Voice	
Total Hours		36
Performance - Piano Concentration		
MUSC 3324	Counterpoint	3
Performance Electives ¹		7
Applied Music: Take each course below twice:		24
MUSC 1351	Piano	
MUSC 4351	Piano	
Music Elective		2
Total Hours		36
Performance - Instrumental Concentration		
MUSC 2155	Functional Piano III	1
MUSC 2156	Functional Piano IV	1
MUSC 3324	Counterpoint	3
MUSC 4221	Studies in Instrumental Pedagogy	2
MUSC 4231	Studies in Instrumental Repertoire	2
Applied Music: Select the appropriate course for your area of focus from each group below and take each course twice: ³		24
MUSC 1371	Brass	
or MUSC 1381	Woodwinds	
or MUSC 1391	Percussion	
MUSC 2371	Brass	
or MUSC 2381	Woodwinds	
or MUSC 2391	Percussion	
MUSC 3371	Brass	
or MUSC 3381	Woodwinds	
or MUSC 3391	Percussion	
MUSC 4371	Brass	
or MUSC 4381	Woodwinds	
or MUSC 4391	Percussion	
Music Elective		3
Total Hours		36
EC-12 Teacher Certification - Voice Concentration		
MUSC 2162	French Diction/Song Literature	1
MUSC 2160	German Diction/Song Literature	1
MUSC 1160	Italian Diction/Song Literature	1
MUSC 1164	English Diction/Song Literature	1
MUSC 2141	String Instruments	1
MUSC 2142	Brass Instruments	1
MUSC 3247	Choral Literature and Techniques	2
MUSC 4256	Music in the Elementary School	2
Applied Music: Take each course below twice:		8
MUSC 1165	Voice	
MUSC 2165	Voice	
MUSC 3165	Voice	
MUSC 4165	Voice	
Professional Development		
CUIN 3300	Educational Foundations	3
CUIN 3301	Educational Psychology	3
CUIN 4310	Instructional Planning and Assessment	3
CUIN 4311	Instructional Methodology and Classroom Management	3

CUIN 4340	Student Teaching/Elementary I	3
CUIN 4381	Student Teaching Secondary - All Level	3

Total Hours **36**

EC-12 Teacher Certification - Instrumental Concentration

MUSC 1261	Voice Class	2
or MUSC 1262	Voice Class	
MUSC 2141	String Instruments	1
MUSC 2142	Brass Instruments	1
MUSC 2143	Woodwind Instruments	1
MUSC 2144	Percussion Instruments	1
MUSC 3246	Instrumental Literature and Techniques	2
MUSC 4256	Music in the Elementary School	2

Applied Music: Select the appropriate course for your area of focus below and take each course twice: ³ **8**

MUSC 1136	Strings	
or MUSC 1170	Brass	
or MUSC 1180	Woodwinds	
or MUSC 1191	Percussion	
MUSC 2136	Strings	
or MUSC 2171	Brass	
or MUSC 2180	Woodwinds	
or MUSC 2191	Percussion	
MUSC 3136	Strings	
or MUSC 3171	Brass	
or MUSC 3182	Woodwinds	
or MUSC 3191	Percussion	
MUSC 4136	Strings	
or MUSC 4171	Brass	
or MUSC 4180	Woodwinds	
or MUSC 4191	Percussion	

Professional Development

CUIN 3300	Educational Foundations	3
CUIN 3301	Educational Psychology	3
CUIN 4301	Instructional Methods and Classroom Management	3
CUIN 4311	Instructional Methodology and Classroom Management	3
CUIN 4340	Student Teaching/Elementary I	3
CUIN 4381	Student Teaching Secondary - All Level	3

Total Hours **36**

EC-12 Teacher Certification - Piano Concentration

MUSC 1261	Voice Class	2
MUSC 2141	String Instruments	1
MUSC 2142	Brass Instruments	1
MUSC 2143	Woodwind Instruments	1
MUSC 2144	Percussion Instruments	1
MUSC 3246	Instrumental Literature and Techniques	2
MUSC 4256	Music in the Elementary School	2

Applied Music: Take each course below **8**

MUSC 1153	Piano	
MUSC 2151	Piano	
MUSC 3151	Piano	
MUSC 4151	Piano	

Professional Development

CUIN 3300	Educational Foundations	3
CUIN 3301	Educational Psychology	3
CUIN 4310	Instructional Planning and Assessment	3
CUIN 4311	Instructional Methodology and Classroom Management	3
CUIN 4340	Student Teaching/Elementary I	3
CUIN 4381	Student Teaching Secondary - All Level	3

Total Hours **36**

¹ Consult with a faculty advisor to ensure you select the appropriate course for your area of focus.

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.

Bachelor of Arts in Music - General Voice Degree Sequence

Core: <https://catalog.pvamu.edu/universitycorecurriculum/>

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Communication Core		3 Communications Core	3
Mathematics Core		3 Life and Physical Sciences Core	3
Component Area Option One Core		3 MUSC 1341	3
MUSC 1165		1 MUSC 1165	1
MUSC 1116		1 MUSC 1117	1
MUSC 1311		3 MUSC 1312	3
MUSC 2162		1 MUSC 1160	1
MUSC Large Ensemble		1 MUSC Large Ensemble	1
Total		16 Total	16

Total Hours: 32

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours
American History Core		3 American History Core	3
Life and Physical Sciences Core		3 Component Area Option Two Core	3
Social and Behavioral Science Core		3 MUSC 2263	2
MUSC 2263		2 MUSC 2117	1
MUSC 2116		1 MUSC 2312	3
MUSC 2311		3 MUSC 1307	3
MUSC 1164		1 MUSC 2160	1
MUSC Large Ensemble		1 MUSC Large Ensemble	1
Total		17 Total	17

Total Hours: 34

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Government/Political Science Core		3 Government/Political Science Core	3
POSC 2305		POSC 2306	
Language, Philosophy, and Culture Core		3 MUSC 4202	2
MUSC 3331		3 or MUSC 4203	
MUSC 3261		2 MUSC 3332	3
MUSC Large Ensemble		1 MUSC 3261	2
MUSC 3220		2 MUSC 3222	2

	MUSC Large Ensemble	1
Total	14 Total	13

Total Hours: 27

Senior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
MUSC 4261		2 MUSC Large Ensemble	1
Minor Requirement		3 MUSC 4261	2
Minor Requirement		3 Creative Arts Core	3
MUSC Large Ensemble		1 Minor Requirement	3
Minor Requirement		3 Minor Requirement	3
		Minor Requirement	3
Total		12 Total	15

Total Hours: 27

Name	Unit
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Total Semester Credit Hours: 120

BA Music - General Piano

Core: <https://catalog.pvamu.edu/universitycorecurriculum/> (<https://catalog.pvamu.edu/academicprogramsanddegreeplans/marvindandjunesamuelbrailsfordcollegeofartsandsciences/musictheatre/undergrad/music-ba/%20https://catalog.pvamu.edu/universitycorecurriculum/>)

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Communication Core		3 Communication Core	3
Mathematics Core		3 Life and Physical Sciences Core	3
MUSC 1251		2 MUSC 1341	3
MUSC 1116		1 MUSC 1251	2
MUSC 1311		3 MUSC Large Ensemble	1
MUSC Large Ensemble		1 MUSC 1117	1
Component Area Option One Core		3 MUSC 1312	3
Total		16 Total	16

Total Hours: 32

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours
American History Core		3 American History Core	3
Life and Physical Sciences Core		3 MUSC 1307	3
Social and Behavioral Science Core		3 MUSC 2251	2
MUSC 2116		1 MUSC 2117	1
MUSC 2251		2 MUSC 2312	3
MUSC 2311		3 Component Area Option Two Core	3
MUSC Large Ensemble		1 MUSC Large Ensemble	1
Total		16 Total	16

Total Hours: 32

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Government/Political Science Core		3 Government/Political Science Core	3
POSC 2305		POSC 2306	
Language, Philosophy, and Culture Core		3 MUSC 3332	3
MUSC 3331		3 MUSC 3251	2
MUSC 3251		2 MUSC 3222	2
MUSC 3220		2 MUSC 4202	2

MUSC Large Ensemble	1	or MUSC 4203	
		MUSC Large Ensemble	1
Total	14 Total		13

Total Hours: 27

Senior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
MUSC 4251		2 MUSC 4251	2
MUSC Large Ensemble		1 MUSC Large Ensemble	1
Music Elective		2 Creative Arts Core	3
Minor Requirement		3 Minor Requirement	3
Minor Requirement		3 Minor Requirement	3
Minor Requirement		3 Minor Requirement	3
Total	14 Total		15

Total Hours: 29

Name	Unit
Total Semester Credit Hours: 120	

BA Music - General Instrumental

Core: <https://catalog.pvamu.edu/universitycorecurriculum/> (<https://catalog.pvamu.edu/academicprogramsanddegreeplans/marvindandjunesamuelbrailsfordcollegeofartsandsciences/musictheatre/undergrad/music-ba/%20https://catalog.pvamu.edu/universitycorecurriculum/>)

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Communication Core		3 Communication Core	3
Mathematics Core		3 Life and Physical Sciences Core	3
Component Area Option One Core		3 MUSC 1341	3
MUSC Applied Music		2 MUSC Applied Music	2
MUSC 1116		1 MUSC 1117	1
MUSC 1311		3 MUSC 1312	3
MUSC Large Ensemble		1 MUSC Large Ensemble	1
Total	16 Total		16

Total Hours: 32

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours
American History Core		3 American History Core	3
Life and Physical Sciences Core		3 Component Area Option Two Core	3
Social and Behavioral Science Core		3 MUSC Applied Music	2
MUSC Applied Music		2 MUSC 1307	3
MUSC 1116		1 MUSC 2117	1
MUSC 2311		3 MUSC 2312	3
MUSC Large Ensemble		1 MUSC Large Ensemble	1
Total	16 Total		16

Total Hours: 32

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Government/Political Science Core		3 Government/Political Science Core	3
POSC 2305		POSC 2306	
Language, Philosophy, and Culture Core		3 MUSC 3332	3
MUSC 3331		3 MUSC 3222	2
MUSC 3220		2 MUSC 4202	2

MUSC Applied Music	2	or MUSC 4203	
MUSC Large Ensemble	1	MUSC Applied Music	2
		MUSC Large Ensemble	1
Total	14 Total		13

Total Hours: 27

Senior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
MUSC Applied Music		2 MUSC Large Ensemble	1
Music Elective		2 MUSC Applied Music	2
MUSC Large Ensemble		1 Creative Arts Core	3
Minor Requirement		3 Minor Requirement	3
Minor Requirement		3 Minor Requirement	3
Minor Requirement		3 Minor Requirement	3
Total	14 Total		15

Total Hours: 29

Name	Unit
Total Semester Credit Hours: 120	

BA Music - Performance Voice

Core: <https://catalog.pvamu.edu/universitycorecurriculum/> (<https://catalog.pvamu.edu/academicprogramsanddegreeplans/marvindandjunesamuelbrailsfordcollegeofartsandsciences/musictheatre/undergrad/music-ba/%20https://catalog.pvamu.edu/universitycorecurriculum/>)

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Communication Core		3 Communication Core	3
Mathematics Core		MUSC 1360	3
MUSC 1360		3 MUSC 1312	3
MUSC 1116		1 MUSC 1160	1
MUSC 1164		1 MUSC 1117	1
MUSC 1311		3 MUSC 1341	3
MUSC Large Ensemble		1 MUSC Large Ensemble	1
Total	12 Total		15

Total Hours: 27

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours
American History Core		3 American History Core	3
Life and Physical Sciences Core		3 MUSC 1307	3
MUSC 2116		1 MUSC 2117	1
MUSC 2363		3 MUSC 2363	3
MUSC 2311		3 MUSC 2312	3
MUSC 2162		1 MUSC 2160	1
MUSC Large Ensemble		1 MUSC Large Ensemble	1
Total	15 Total		15

Total Hours: 30

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Government/Political Science Core		3 Government/Political Science Core	3
POSC 2305		POSC 2306	
Language, Philosophy, and Culture Core		3 Life and Physical Sciences Core	3
MUSC 3331		3 MUSC 3332	3

MUSC 3360	3 MUSC 3360	3
MUSC 3220	2 MUSC 3222	2
MUSC 4202 or 4203	2 MUSC Large Ensemble	1
MUSC Large Ensemble	1	
Total	17 Total	15

Total Hours: 32

Senior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Component Area Option One Core		3 Social and Behavioral Science Core	3
MUSC 3324		3 Component Area Option Two Core	3
MUSC 4360		3 Creative Arts Core	3
MUSC 4363		3 MUSC 3263	2
MUSC Large Ensemble		1 MUSC 4360	3
		MUSC Large Ensemble	1
Total		13 Total	15

Total Hours: 28

Name	Unit
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Total Semester Credit Hours: 120

BA Music - Performance Piano

Core: <https://catalog.pvamu.edu/universitycorecurriculum/> (<https://catalog.pvamu.edu/academicprogramsanddegreeplans/marvindandjunesamuelbrailsfordcollegeofartsandsciences/musictheatre/undergrad/music-ba/%20https://catalog.pvamu.edu/universitycorecurriculum/>)

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Communication Core		3 Communication Core	3
Mathematics Core		3 Life and Physical Sciences Core	3
MUSC 1351		3 MUSC 1341	3
MUSC 1116		1 MUSC 1351	3
MUSC 1311		3 MUSC 1117	1
MUSC Large Ensemble		1 MUSC 1312	3
		MUSC Large Ensemble	1
Total		14 Total	17

Total Hours: 31

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours
American History Core		3 American History Core	3
Life and Physical Sciences Core		3 MUSC Piano	3
Social and Behavioral Science Core		3 MUSC 2117	1
MUSC Piano		3 MUSC 2312	3
MUSC 2116		1 MUSC 1307	3
MUSC 2311		3 Component Area Option One Core	3
MUSC Large Ensemble		1 MUSC Large Ensemble	1
Total		17 Total	17

Total Hours: 34

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Government/Political Science Core		3 Government/Political Science Core	3
POSC 2305		POSC 2306	
Language, Philosophy, and Culture Core		3 MUSC 3332	3

MUSC 3331	3 MUSC 3222	2
MUSC 3220	2 MUSC 4202	2
MUSC Piano	3 or MUSC 4203	
MUSC Large Ensemble	1 MUSC Piano	3
	MUSC Large Ensemble	1
Total	15 Total	14

Total Hours: 29

Senior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
MUSC 3324		3 MUSC 4351	3
MUSC 4351		3 MUSC Large Ensemble	1
MUSC Large Ensemble		1 Performance Elective	2
Performance Elective		3 Performance Elective	2
Creative Arts Core		3 Music Elective	2
		Component Area Option Two Core	3
Total		13 Total	13

Total Hours: 26

Name	Unit
Total Semester Credit Hours: 120	

BA Music - Performance Instrumental

Core: <https://catalog.pvamu.edu/universitycorecurriculum/>

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Communication Core		3 Communication Core	3
Mathematics Core		3 Life and Physical Sciences Core	3
MUSC Applied Music		3 MUSC 1341	3
MUSC 1116		1 MUSC Applied Music	3
MUSC 1311		3 MUSC 1117	1
MUSC Large Ensemble		1 MUSC 1312	3
		MUSC Large Ensemble	1
Total		14 Total	17

Total Hours: 31

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours
American History Core		3 American History Core	3
Life and Physical Sciences Core		3 Component Area Option One Core	3
Social and Behavioral Science Core		3 MUSC Applied Music	3
MUSC Applied Music		3 MUSC 2117	1
MUSC 2116		1 MUSC 2312	3
MUSC 2311		3 MUSC 1307	3
MUSC Large Ensemble		1 MUSC Large Ensemble	1
Total		17 Total	17

Total Hours: 34

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Government/Political Science Core		3 Government/Political Science Core	3
POSC 2305		POSC 2306	

Language, Philosophy, and Culture Core	3 MUSC 3332	3
MUSC 3220	2 MUSC 3222	2
MUSC 3331	3 MUSC 4202	2
MUSC Applied Music	3 or MUSC 4203	
MUSC Large Ensemble	1 MUSC Applied Music	3
	MUSC Large Ensemble	1
Total	15 Total	14

Total Hours: 29**Senior**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
MUSC 2155		1 MUSC 2156	1
MUSC 3324		3 MUSC 4231	2
MUSC 4221		2 MUSC Applied Music	3
MUSC Applied Music		3 MUSC Music Elective	3
MUSC Large Ensemble		1 MUSC Large Ensemble	1
Creative Arts Core		3 Component Area Option Two Core	3
Total		13 Total	13

Total Hours: 26

Name	Unit
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Total Semester Credit Hours: 120

BA Music - EC-12 Teacher Certification - VoiceCore: <https://catalog.pvamu.edu/universitycorecurriculum/>**Freshman**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Communication Core		3 Communication Core	3
Mathematics Core		3 Life and Physical Sciences Core	3
Component Area Option One Core		3 MUSC 1341	3
MUSC 1165		1 MUSC 1165	1
MUSC 1116		1 MUSC 1117	1
MUSC 1311		3 MUSC 1312	3
MUSC 1164		1 MUSC 1160	1
MUSC Large Ensemble		1 MUSC Large Ensemble	1
Total		16 Total	16

Total Hours: 32**Sophomore**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
American History Core		3 American History Core	3
Life and Physical Sciences Core		3 Creative Arts Core	3
Social and Behavioral Science Core		3 MUSC 1307	3
MUSC 2165		1 MUSC 2117	1
MUSC 2116		1 MUSC 2312	3
MUSC 2311		3 MUSC 2160	1
MUSC 2162		1 MUSC 2165	1
MUSC Large Ensemble		1 MUSC Large Ensemble	1
Total		16 Total	16

Total Hours: 32

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Government/Political Science Core		3 Government/Political Science Core	3
POSC 2305		POSC 2306	
Language, Philosophy, and Culture Core		3 Component Area Option Two Core	3
MUSC 2141		1 MUSC 2142	1
MUSC 3331		3 MUSC 3332	3
MUSC 3165		1 MUSC 3165	1
MUSC 3220		2 MUSC 3222	2
MUSC 4202		2 MUSC 3247	2
or MUSC 4203		MUSC Large Ensemble	1
MUSC Large Ensemble		1	
Total		16 Total	16

Total Hours: 32**Senior**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
MUSC 4165		1 MUSC Large Ensemble	1
MUSC 4256		2 MUSC 4165	1
MUSC Large Ensemble		1 CUIV 4340	3
CUIV 3300		3 CUIV 4381	3
CUIV 3301		3	
CUIV 4310		3	
CUIV 4311		3	
Total		16 Total	8

Total Hours: 24

Name	Unit
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Total Semester Credit Hours: 120

BA Music - EC-12 Teacher Certification - Piano

Core: <https://catalog.pvamu.edu/universitycorecurriculum/> (<https://catalog.pvamu.edu/academicprogramsanddegreeplans/marvindandjunesamuelbrailsfordcollegeofartsandsciences/musictheatre/undergrad/music-ba/%20https://catalog.pvamu.edu/universitycorecurriculum/>)

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Communication Core		3 Communication Core	3
Mathematics Core		3 Life and Physical Sciences Core	3
Component Area Option One Core		3 MUSC 1341	3
MUSC 1153		1 MUSC 1153	1
MUSC 1116		1 MUSC 1117	1
MUSC 1311		3 MUSC 1312	3
MUSC 1261		2 MUSC 2141	1
MUSC Large Ensemble		1 MUSC Large Ensemble	1
Total		17 Total	16

Total Hours: 33**Sophomore**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
American History Core		3 American History Core	3
Life and Physical Sciences Core		3 Component Area Option Two Core	3
Social and Behavioral Science Core		3 MUSC 1307	3
MUSC 2151		1 MUSC 2151	1

MUSC 2116	1 MUSC 2117	1
MUSC 2311	3 MUSC 2312	3
MUSC 2142	1 MUSC 2143	1
MUSC 2144	1 MUSC Large Ensemble	1
MUSC Large Ensemble	1	
Total	17 Total	16

Total Hours: 33**Junior**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Government/Political Science Core		3 Government/Political Science Core	3
POSC 2305		POSC 2306	
Language, Philosophy, and Culture Core		3 Creative Arts Core	3
MUSC 3331		3 MUSC 3332	3
MUSC 3151		1 MUSC 3151	1
MUSC 3220		2 MUSC 3222	2
MUSC 4256		2 MUSC 3246	2
MUSC 4202		2 MUSC Large Ensemble	1
or MUSC 4203			
MUSC Large Ensemble		1	
Total		17 Total	15

Total Hours: 32**Senior**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
MUSC 4151		1 MUSC 4151	1
MUSC Large Ensemble		1 MUSC Large Ensemble	1
CUIN 3300		3 CUIN 4340	3
CUIN 3301		3 CUIN 4381	3
CUIN 4310		3	
CUIN 4311		3	
Total		14 Total	8

Total Hours: 22

Name	Unit
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Total Semester Credit Hours: 120

BA Music - EC-12 Teacher Certification - Instrumental

Core: <https://catalog.pvamu.edu/universitycorecurriculum/> (<https://catalog.pvamu.edu/academicprogramsanddegreeplans/marvindandjunesamuelbrailsfordcollegeofartsandsciences/musictheatre/undergrad/music-ba/%20https://catalog.pvamu.edu/universitycorecurriculum/>)

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Communication Core		3 Communication Core	3
Mathematics Core		3 Life and Physical Sciences Core	3
Component Area Option One Core		3 MUSC 1341	3
MUSC Applied Music		1 MUSC Applied Music	1
MUSC 1116		1 MUSC 1117	1
MUSC 1311		3 MUSC 1321	3
MUSC 1261		2 MUSC 2141	1
or MUSC 1262		MUSC Large Ensemble	1

MUSC Large Ensemble	1	
Total	17 Total	16

Total Hours: 33

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours
American History Core		3 American History Core	3
Life and Physical Sciences Core		3 Component Area Option Two Core	3
Social and Behavioral Science Core		3 MUSC Applied Music	1
MUSC Applied Music		1 MUSC 2117	1
MUSC 2116		1 MUSC 2312	3
MUSC 2311		3 MUSC 1307	3
MUSC 2142		1 MUSC 2143	1
MUSC 2144		1 MUSC Large Ensemble	1
MUSC Large Ensemble		1	
Total		17 Total	16

Total Hours: 33

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Government/Political Science Core		3 Government/Political Science Core	3
POSC 2305		POSC 2306	
Language, Philosophy, and Culture Core		3 Creative Arts Core	3
MUSC Applied Music		1 MUSC Applied Music	1
MUSC 3331		3 MUSC 3332	3
MUSC 3220		2 MUSC 3222	2
MUSC 4256		2 MUSC 3246	2
MUSC 4202		2 MUSC Large Ensemble	1
or MUSC 4203			
MUSC Large Ensemble		1	
Total		17 Total	15

Total Hours: 32

Senior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
MUSC Applied Music		1 MUSC Applied Music	1
MUSC Large Ensemble		1 MUSC Large Ensemble	1
CUIN 3300		3 CUIN 4340	3
CUIN 3301		3 CUIN 4381	3
CUIN 4301		3	
CUIN 4311		3	
Total		14 Total	8

Total Hours: 22

Name	Unit
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Total Semester Credit Hours: 120

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

BA Music

Degree Skills

1. Ability to perform in their area of concentration at various levels and genres
2. Ability to sight read and perform with limited rehearsal with a high level of accuracy
3. Ability to work in ensemble settings to prepare literature for performance in public settings
4. Ability to perform literature through varying mediums of large and small ensembles, solo, chamber and recorded

Concentration Skills

1. Ability to incorporate data that enhances knowledge, skills and abilities to broaden creativity, thinking, use of data and progress that can be observed
2. Ability to connect data and choices in selecting performance mediums and styles
3. Advance the human condition through learned international cultural competence, knowledge of civil responsibility, and a foundational knowledge of human behavior

Co-curricular and Extracurricular Skills

1. Proficiency in working within teams
2. Communicate and express ideas written and oral settings
3. Ability to respond to challenges with a creative and interpretive mindset

Department of Physics

Purpose and Goals

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 the Texas Physics Consortium (TPC) for the following universities: Prairie View A&M University, Tarleton State University, Texas A&M University-Corpus Christi, Texas A&M University-Kingsville, West Texas A&M University, Texas Southern University, and Mid Western State University. This consortium undergraduate BS 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 Focus Areas

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)

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 better prepare you for Physics and other professional programs.

Requirements for Physics as a Minor

Students who select Physics as a minor must complete 18 semester credit hours from the following courses with a minimum grade of a "C":

PHYS 2125	University Physics Lab I	1
PHYS 2126	University Physics Lab II	1
PHYS 2325	University Physics I	3
PHYS 2326	University Physics II	3

Physics Electives

10

Total Hours**18**

Honor Societies, Clubs, and Service Organizations

Students who have had at least one course in physics above the lower division 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.

Courses

PHYS 1101 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 1301 (may be taken concurrently) or PHYS 2113 (may be taken concurrently).

PHYS 1102 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 1301 or PHYS 2113) and (PHYS 1302 (may be taken concurrently) or PHYS 2123 (may be taken concurrently)).

PHYS 1301 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 1314 or MATH 1113) or (MATH 1511 or MATH 1115) or (MATH 1316 or MATH 1123).

PHYS 1302 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 1301 or PHYS 2113) or (PHYS 2325 or PHYS 2513).

PHYS 2125 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 2325 (may be taken concurrently) or PHYS 2513 (may be taken concurrently).

PHYS 2126 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 2326 (may be taken concurrently) or PHYS 2523 (may be taken concurrently).

PHYS 2325 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 2413 or MATH 1124.

PHYS 2326 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 2325 or PHYS 2513) and (MATH 2414 or MATH 2024).

PHYS 3310 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 2326 or PHYS 2523.

PHYS 3312 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 2326 or PHYS 2523.

PHYS 3316 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 2326 or PHYS 2523.

PHYS 3318 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 2326 or PHYS 2523.

PHYS 3324 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 2326 or PHYS 2523.

PHYS 4191 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 3318 or PHYS 3183.

PHYS 4192 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 4191 or PHYS 4911.

PHYS 4302 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 2326 or PHYS 2523.

PHYS 4306 Thermodynamics and Statistical Mechanics: 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: MATH 3014 or MATH 3401.

PHYS 4310 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 2326 or PHYS 2523.

PHYS 4316 Special Topics PHYS: 3 semester hours.

Selected current and emerging topics in Physics. Courses may be repeated for credit when topics vary.

PHYS 4399 Independent Study: 1-3 semester hour.

Readings, research, and/or field work on selected topics.

Undergraduate

Purpose and Goals

The Department of Physics offers a Bachelor of Science in Physics, as a part of the Texas Physics Consortium - nine Texas institutions that together offer the degree. The department has three major goals:

- To provide a firm foundation in physics for those pursuing careers in areas such as biology, chemistry, computer science, dentistry, engineering, the medical sciences, mathematics, and teaching at primary and secondary levels
- To strive to equip students with the ability to model the world and make measurements, understand the natural order of things; and
- To prepare graduates with skills for posing and solving a wide array of problems while incorporating available technologies and reporting the results of such work.

The department has state of the art research and instructional labs available for our students to use, and an excellent student-to-faculty ratio. Physics majors get valuable mentoring from dedicated faculty whose goal is to ensure that each student develops to his or her full potential.

Physics, BS

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: (1) Core Curriculum courses (42 SCH), (2) Major courses (60 SCH), and (3) Specialization (18 SCH). A minor may be chosen depending upon the student's preference and career choice.

Complete Core Curriculum Listing at <https://catalog.pvamu.edu/universitycorecurriculum/>**Core Curriculum 42 Credit Hours**

Communication		6
ENGL 1301	Freshman Composition I	
ENGL 1302	Freshman Composition II	
Mathematics		3
MATH 1314	College Algebra	
Life and Physical Sciences		6
CHEM 1303	General Inorganic Chemistry I	
PHSC 1315	Physical Science I	
Language, Philosophy, and Culture (Select One)		3
Creative Arts (Select One)		3
American History		6
HIST 1301	United States History I	
HIST 1302	United States History II	
Government/Political Science		6
POSC 2305	American Government	
POSC 2306	Texas Government	
Social and Behavioral Sciences (Select One)		3
Component Area Option One (Select One)		3
Component Area Option Two		3
COMM 1311	Introduction to Speech Communication	
Major Required Courses		
PHYS 2325	University Physics I	3
PHYS 2125	University Physics Lab I	1
PHYS 2326	University Physics II	3
PHYS 2126	University Physics Lab II	1
PHYS 3310	Mechanics I	3
PHYS 3312	Electricity and Magnetism I	3
PHYS 3316	Mathematical Physics I	3
PHYS 3318	Modern Physics I	3
PHYS 3324	Introduction to Nuclear, Particle and Radiation Physics	3
PHYS 4302	Introductory Quantum Mechanics I	3
PHYS 4306	Thermodynamics and Statistical Mechanics	3
PHYS 4310	Advanced Physics Lab	3
PHYS 4191	Physics Research Project	1
PHYS 4192	Physics Research Seminar	1
MATH 2413	Calculus with Analytic Geometry I	4
MATH 2414	Calculus with Analytic Geometry II	4
MATH 2320	Differential Equations	3
MATH 3401	Calculus III	4
CHEM 1111	General Chemistry Lab I	1
PHSC 1112	Sci Lab	1
PHSC 1317	Physical Science II	3
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, BIOL, CHEM OR MCEG		

Total Hours**120****Bachelor of Science in Physics Degree Sequence**Core: <https://catalog.pvamu.edu/universitycorecurriculum/>

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Mathematics Core		3 Component Area Option Two Core	3
MATH 1316		COMM 1311	
Communication Core		3 Communication Core	3
ENGL 1301		ENGL 1302	
Component Area Option One Core		3 MATH 2413	4
Life and Physical Sciences Core		3 Life and Physical Sciences Core	3
PHSC 1315		CHEM 1303	
PHSC 1112		1 CHEM 1111	1
Creative Arts Core		3	
Total		16 Total	14

Total Hours: 30**Sophomore**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
MATH 2414		4 American History Core	3
PHYS 2325		3 HIST 1302	
PHYS 2125		1 MATH 2320	3
American History Core		3 PHYS 2326	3
HIST 1301		PHYS 2126	1
Government/Political Science Core		3 Government/Political Science Core	3
POSC 2305		POSC 2306	
		Language, Philosophy & Culture Core	3
Total		14 Total	16

Total Hours: 30**Junior**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
MATH 3401		4 PHYS 3316	3
PHYS 3310		3 PHYS 3318	3
PHYS 3312		3 PHYS 4310	3
Physics Elective		3 Physics Elective	3
Specialization Requirement		3 Specialization Requirement	3
Total		16 Total	15

Total Hours: 31**Senior**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
PHYS 4302		3 PHSC 1317	3
PHYS 4306		3 PHYS 3324	3
PHYS 4191		1 PHYS 4192	1
Specialization Requirement		3 Specialization Requirement	3
Specialization Requirement		3 Specialization Requirement	3
Social and Behavioral Sciences Core		3	
Total		16 Total	13

Total Hours: 29

Name	Unit
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Total Semester Credit Hours: 120

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

BS Physics

Degree Skills

1. Data analysis and effective communication
2. Analyze and solve problems
3. Critical thinking

Concentration Skills

1. Materials functionalization
2. Radiation biology
3. Instrumentation

Co-curricular and Extracurricular Skills

1. Technical writing and communication for presentations and publishing
2. Collaborative skills

Department of 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 reviews of high school records. Those selected for scholarships are appointed Midshipmen U.S. Naval Reserve and receive benefits which include tuition, instructional fees, uniforms, 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 the 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

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 advanced standing in the college program.

Commissioning Academic Requirements

Ensign, United States Navy

NAVY 1301	Introduction to Naval Sciences	3
NAVY 1302	Sea power and Maritime Affairs	3
NAVY 2301	Leadership and Management I	3
NAVY 2302	Navigation and Naval Operations I	3
NAVY 3301	Navigation and Naval Operations II	3
NAVY 3302	Naval Ships Systems I	3
NAVY 4301	Naval Ships Systems II	3
NAVY 4302	Leadership and Management II (Must take 6 hours of Physics & Calculus)	3
Must take 6 SCH of Physics & Calculus		6
PHYS 2325	University Physics I	
PHYS 2326	University Physics II	
MATH 2413	Calculus with Analytic Geometry I	
MATH 2414	Calculus with Analytic Geometry II	
Must take 6 SCH of English		6
ENGL 1301	Freshman Composition I	
ENGL 1302	Freshman Composition II	
ENGL 2314	Advanced Composition	
ENGL 3302	Creative Writing Practices	
ENGL 3322	Advanced Grammar	
Select one of American History/National Security Policy		3
ARMY 2320	Military History	
HIST 1301	United States History I	
HIST 1302	United States History II	
HIST 2320	Military History	
POSC 3353	U.S. Foreign Policy	
Select one World Culture or Regional Study		3
ARAB 1301	Elementary Arabic I	
ARAB 1302	Elementary Arabic II	
CHIN 1301	Beginning Chinese I	
CHIN 1302	Beginning Chinese II	
CHIN 2311	Intermediate Chinese I	
CHIN 2312	Intermediate Chinese II	
HIST 3371	Post-Colonial African History	
HIST 2381	African-American History	

POSC 2353	Latin American and Caribbean Politics	
SOCG 2302	Black Families	
SPAN 4300	Hispanic Civilization and Culture II	
Total Hours		42

Second Lieutenant, United States Marine Corps

NAVY 1301	Introduction to Naval Sciences	3
NAVY 1302	Sea power and Maritime Affairs	3
NAVY 2301	Leadership and Management I	3
NAVY 3310	Evolution of Warfare	3
NAVY 4302	Leadership and Management II	3
Total Hours		15

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 1301), Leadership and Management I (NAVY 2301), for up to two semester hours of the physical education activity requirement in the general education program.
3. NAVY 1302 (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 SCH 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 of 15 SCH per semester; 12 SCH major requirements and three (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

Fall - Semester 1	Hours	Spring - Semester 2	Hours
NAVY 1301		3 NAVY 1302	3
Total		3 Total	3

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours
NAVY 2301		3 NAVY 2302	3
Total		3 Total	3

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
NAVY 4301		3 NAVY 3302	3
Total		3 Total	3

Senior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
NAVY 3301		3 NAVY 4302	3
Total		3 Total	3

Total Hours: 24

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.

Title	Year Taken	Normally Required or Recommended	Minimum Semester Hours
Calculus (Differential and Integral) (two of the following courses): MATH 2413 & MATH 2414	Freshman-Sophomore	Required of all Navy Option Scholarship students by end of Sophomore year.	6 SCH

University Physics (Calculus-based): Sophomore-Junior PHYS 2325 and PHYS 2326	Required of all Navy Option Scholarship students by end of Junior year.	6 SCH
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- 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.
- Swimming at the level of a third-class swimmer is required prior to the first midshipman summer cruise.
- Qualification as a Mate A and Skipper B in the unit's small boat sail program.
- 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.

1.

Courses

NAVY 1301 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 1302 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 2301 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 2302 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 3301 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 2302 or NAVY 2023.

NAVY 3302 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 3310 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 3399 Independent Study: 3 semester hours.

Navy 3000 level course reading and/or field work on selected topics.

NAVY 4301 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 4302 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 2301 or NAVY 2013.

NAVY 4311 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 4399 Independent Study: 3 semester hours.

Navy 4000 level course reading and/or field work on selected topics.

Undergraduate Medical Academy

The mission of the Texas Undergraduate Medical Academy (UMA) is consistent with the overall mission of Prairie View A & M University and the Texas A & M University System. The UMA is dedicated to excellence in teaching, research, service, and professional development. The UMA emphasizes the integration of leadership development and pre-medical science education, without sacrificing concern and compassion for the community.

Learn more about the Undergraduate Medical Academy: <https://www.pvamu.edu/uma/>

Undergraduate Studies

Mission

The Office of Undergraduate Studies (OUS) is committed to working synergistically with the University's eight colleges and schools to ensure an integrated academic experience for all undergraduate students at Prairie View A&M University. Through working with the academic departments, the OUS encourages the use of innovative instructional methods for all disciplines with an emphasis on rigor, relevance, and responsiveness to the academic and professional needs of the PVAMU undergraduate. We provide opportunities for students to participate in experiential learning opportunities that are an essential component of the undergraduate learning experience, through High Impact Practices (HIPs), e.g., research, internships, and service-learning.

As a component of the Office of Academic Affairs, the OUS is committed to serving the University in achieving its mission by working to:

- Assist students as they transition to PVAMU from high school or other educational institutions, identify a major, complete their Core Curriculum, participate in HIPs/Career Exploration and complete the requirements for the Bachelor's Degree;
- Ensure high-quality undergraduate degree and certification programs that are rigorous and current;
- Establish new degree programs and reviewing existing programs for quality and coherence through the Undergraduate Council and in collaboration with colleges and departments; and
- Provide administrative oversight and support for the Bachelor of General Studies Degree Program, the Core Curriculum, Assessment and Evaluation, Academic Advising, Undergraduate Policies and Procedures, the Quality Enhancement Plan (QEP), Open Educational Resources (OER) initiatives, Undergraduate Research and other HIPs initiatives.

The Office of Undergraduate Studies offers a BA and BS in General Studies.

Program Goals

The General Studies degree is a customized set of study that allows the student to pursue an academic program that fits their educational, professional, and career goals. Through individualized advising, the program helps students define their educational goals and design multidisciplinary curricula drawing on a variety of course offerings. The program goals are:

- Provide flexibility to students with broad interests.
- Offer an option to those with new interests or those changing their majors late in their academic careers.
- Maximize opportunities for individuals to pursue graduate studies and advance their careers.

Instructional Organization

Program	Degree Offered
General Studies	BA, BS

College Academic Requirements

Students pursuing an undergraduate degree in Undergraduate Studies 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

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 2.00 grade point average is required before the student is approved for graduation. Transfer credits toward the major must be approved by the program coordinator and Dean of Undergraduate Studies.

Minimum Total Credit Hours for Graduation

Students must complete a minimum of 120 semester credit hours 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.

Departmental Certificates

Global Awareness and Leadership Certificate

The Global Awareness and Leadership Certificate was proposed as a part of our Quality Enhancement Plan and our reaffirmation of accreditation efforts. The development of global and intercultural competence was identified as a need in the 2016 strategic plan and through our ongoing assessment and quality improvement processes. Global competence is also identified as a marketable skill by the Texas 60x30 Plan (Multicultural Fluency) and the National Association of Colleges and Employers (Equity and Inclusion).

Certificate Outcomes

A student completing the Global Awareness and Leadership Certificate will be able to:

1. Identify their own cultural rules and biases and begin to question those rules or biases based on a growing global understanding. (Self-Awareness)
2. Describe important issues that impact local and international communities and begin to connect his or her local actions to global contexts. (Global Awareness)
3. Demonstrate a comparative understanding of another culture's history, values, politics, communication styles, economy, or beliefs and practices. (Cultural Knowledge)
4. Take informed and responsible action to address ethical, social, and environmental challenges in global systems by using interdisciplinary perspectives, knowledge, and skills. (Social Responsibility)

Students interested in the 9 SCH certificate must fill out an application form with the Office of Undergraduate Studies prior to their senior year. Applicants must be currently enrolled in an undergraduate degree program and in good academic standing. Students are encouraged to work with an advisor or B-GLOBAL Director to identify the courses that fit program requirements.

Students must consult with their academic advisor to ensure the courses for the certificate meet the requirements of the declared degree program. If the courses do not apply to the declared degree plan, the courses for the certificate will not qualify for federal aid under CPoS requirements.

Certificate Requirements

African American Designated Elective (Choose One) ¹	3
B-Global Restricted Elective (Choose Two) ¹	6
Six Globally Focused Events	
Capstone Project	
Total Hours	9

¹ Please see your academic advisor for a full list of approved electives.

General Studies Courses

GNST 2301 Coding and App Development (Basics): 3 semester hours.

Introduction to general programming language (including various data types, syntax, expression, assignment, branching, looping, function, etc.) Swift programming language. Xcode platform and coding playground and basic app development for smart devices. (IOS).

Prerequisites: MATH 1123 or MATH 1316.

GNST 3302 iOS App Development: 3 semester hours.

Swift programming language, Xcode app development platform, and basic data structure and algorithm concepts, and advanced iOS app development, including GPS and map app, single view app, multiple view app, text field, table view, list view, gesture recognizer, various sensors, and app publication in App Store.

Prerequisites: GNST 2103 or GNST 2301.

GNST 3310 Multidisciplinary Seminar: 3 semester hours.

This course is designed to encourage self-analysis of career interests and planning. Students will also (a) develop their skills in critical thinking, reading, writing, and speaking; (b) synthesize knowledge drawn from other courses; and (c) learn to collaborate with others in building knowledge and understanding. Required for all General Studies majors.

Prerequisites: (ENGL 2311 or ENGL 1143) or (ENGL 1302 or ENGL 1133) or (HUMA 1303 or HUMA 1301) or (PHIL 2023 or PHIL 2306) or PHIL 2303 or (ENGL 2153 or ENGL 2341) or (ENGL 2383 or ENGL 2331) or (HUMA 1403 or HUMA 1305).

GNST 4310 Diversity & Global Learning: 3 semester hours.

This high impact practice course will introduce students to obstacles that world populations face. The course will consist of field assignments that will help students explore cultures, life experiences, and worldviews different from their own. Experiential learning may be local, regional, or national. Required for all General Studies majors. This is a writing intensive course.

Prerequisites: GNST 3310 or GNST 3103.

GNST 4320 Multidisciplinary Capstone: 3 semester hours.

This course requires students to integrate and use fundamental concepts learned in previous courses within the students' degree concentration. Students nearing the end of their college years will create a project of some sort that integrates and applies what they've learned. The project might be a research paper, a performance or an ePortfolio of their "best work". Required for General Studies majors. This is a writing intensive course. Prerequisites: (GNST 3310 or GNST 3101) and (GNST 4310 or GNST 4103).

Public Health Courses

PHLT 1306 Environmental Health: 3 semester hours.

This course is designed to introduce students to examine human-environment interactions in modern society, including: environmental problems related to life in technologically advanced societies, renewable resources, and the effects of various human activities and enterprises on environments.

PHLT 1310 Foundation to Public Health: 3 semester hours.

This course introduces the student to the health education profession. Roles and responsibilities of health educators in a variety of occupational settings are described.

PHLT 1320 Principles of Health Promotion and Disease Prevention: 3 semester hours.

This course covers essential content in addressing social and behavioral science concepts for application across public health domains. Material will address theories and applications in public health. The course will focus on three major approaches to public health problems: Psychosocial. The psychosocial unit will include exposure to multiple behavioral theories and application of theory in understanding etiology and planning interventions. Community. The community unit will include a review of community change concepts and theories and exposure to community organizing techniques. Economics and Policy. The economics and policy unit will address such functions as supply and demand, opportunity costs, costs versus benefits, and intended vs. unintended consequences in examining the role of economics and policy change in decision-making about public health.

PHLT 2325 Biostatistics: 3 semester hours.

The purpose of the course is to teach fundamental concepts and techniques of descriptive and inferential statistics with applications in health care, medicine, public health, and epidemiology. Basic statistics, including probability, descriptive statistics, inference for means and proportions, and regression methods are presented. The analytic methods and applications will be linked to topics including health promotion, epidemiology, and program evaluation.

PHLT 2351 Advanced Health Promotion and Disease Prevention: 3 semester hours.

This course examines personal, social, and environmental factors that influence health-related behaviors as well as the role of individuals, groups, institutions, social structures, and policy in encouraging and discouraging healthy behaviors. The course focuses on behavior change theories and the application of these theories to health promotion.

PHLT 2383 Multicultural Health Issues: 3 semester hours.

The course is designed to address health issues and problems that various ethnic groups face in the United States. Cultural differences in health behaviors, health care access, and promotion and prevention programs are emphasized.

PHLT 3300 Spirituality and Health: 3 semester hours.

This course is to introduce students to the relationship between spirituality, religion, and health in children and adults. Family beliefs and values will be discussed, as well as their role in treatment and healing.

PHLT 3305 Public and Community Health: 3 semester hours.

This course focuses 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.

PHLT 3306 Technology in Health Communication and Technology in Health: 3 semester hours.

The interdisciplinary course introduces students to current tools, technology and applications in the healthcare systems; it allows for critique and analyze of various management programs and technology systems currently available to health care professionals.

PHLT 3308 Women and Men Health: 3 semester hours.

This course will explore health issues affecting both males and females. It is designed to empower males and females to make informed decisions about their health and health care.

PHLT 3310 Scientific Writing: 3 semester hours.

This course aims to demystify the writing process and teach the fundamentals of effective scientific writing. Instruction will focus primarily on the process of writing and publishing scientific manuscripts but grant writing will also be addressed. The course will be presented in two segments: Part (1) teaches students how to write effectively, concisely, and clearly and part (2) takes them through the preparation of an actual scientific manuscript or grant. Prerequisites: PHLT 1310.

PHLT 3311 Seminar: 3 semester hours.

This course introduces a variety of topic, issues, and skills important to the profession of health. Students will be exposed to health certifications and professional organizations representing the field, and promotion resources.

PHLT 3312 Health Policy & Health Systems: 3 semester hours.

This course presents an introduction to health policy, i.e., the various ways in which the government plays a role in health and in the provision of health care. Health policies can have a profound effect on quality of life. Accessibility, cost, quality of health care; safety of food, water, and environment; the right to make decisions about our health; these issues are vitally tied to health policies.

Prerequisites: PHLT 1310.

PHLT 3313 Public Health Administration: 3 semester hours.

This course is an overview of issues pertaining to local health administration. Emphasis is placed on public sector organizational structures and the challenges they face in changing local and national economies with broad political dimensions. This course will examine the organization and management within public health settings including system influences, leadership, communication, organization behavior, team development, organization design, evaluation, productivity, performance improvement. It will provide an introduction to policy issues in healthcare including state and federal roles in healthcare, the policy process and various healthcare policy and help you explore values and American political processes as they influence health policy.

Prerequisites: PHLT 1310.

PHLT 3314 Public Health Budget & Personnel: 3 semester hours.

This course is an overview of issues pertaining to local health administration. Emphasis is placed on public sector organizational structures and the challenges they face in changing local and national economies with broad political dimensions. This course will examine the organization and management within public health settings including system influences, leadership, communication, organization behavior, team development, organization design, evaluation, productivity, performance improvement. It will provide an introduction to policy issues in healthcare including state and federal roles in healthcare, the policy process and various healthcare policy and help you explore values and American political processes as they influence health policy.

Prerequisites: PHLT 2325.

PHLT 3320 Determinants of Health and Health Disparities: 3 semester hours.

This course examines how social, economic, environmental, and cultural and lifestyle factors contribute to differences in morbidity and mortality among racial and ethnic minorities. Students will also examine social determinants of population health.

Prerequisites: PHLT 1310.

PHLT 3324 Epidemiology: 3 semester hours.

This course provides an introduction to the fundamental definitions, terminology, concepts, methods, and critical thinking used in epidemiology. It will help student to identify and describe patterns of disease occurrence using scientific approach.

Prerequisites: PHLT 1310 or MATH 1103 and (ENGL 1123 or ENGL 1301).

PHLT 3327 Human Behavior Theory and Practice: 3 semester hours.

The purpose of this course is to provide a thorough discussion of the determinants of health-related behavior, health behavior theory (HBT), and how theory can be utilized in health education and behavior research and practice. Emphasis will be placed on how various theories of health behavior are used to design, implement, and evaluate behavior change and health education interventions. This course focuses on the presentation and critical analysis of the role of theory in health promotion and eliciting behavior change, the description of different theories being utilized in behavior change interventions and the application and evaluation of these theories in practice. One course, however, cannot possibly cover all theories relevant to health behavior, health education, and health promotion. The intent of this course, therefore, is not to provide definitive coverage of theory, but rather to introduce and prepare health education and behavior graduate students for continued work using select health behavior theories throughout their professional careers.

Prerequisites: PHLT 1306.

PHLT 3341 Geography of Health/GIS Mapping: 3 semester hours.

This course offers a critical geographic perspective to human health issues, examining disease distributions, how changing relationships between people and their environments (natural, built, and social environments) influence health, and different approaches to the study of health in geography. It also examines how GIS is used throughout the health care industry and public health. Covers environmental health, disease surveillance, and health services research. Students critically review current literature and gain hands-on experience with GIS software.

Prerequisites: PHLT 1306 and PHLT 2325.

PHLT 3342 Nutrition and Disease: 3 semester hours.

This course covers issues in public health related to how nutrition is used for chronic disease prevention. The process of effectively and efficiently identifying, reading, and synthesizing existing sources of reliable information on particular diet disease associations will be covered extensively as will applying this knowledge in a public health context. We will focus on the relation of nutrition to obesity, diabetes, coronary heart disease, hypertension, cancer, addiction-related health problems, mental illness, food-borne and water-borne diseases, and selected additional health outcomes of public health significance in the U.S.

Prerequisites: PHLT 2351.

PHLT 4302 Global Health: 3 semester hours.

This course examines major global health challenges, program and policies. Students will be introduced to a diversity of health and disease. The course will explore global health priorities such as poverty, health inequality, health system reforms, major global initiatives for disease prevention and health promotion.

Prerequisites: PHLT 1310.

PHLT 4307 Community Planning and Assessment: 3 semester hours.

This course 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. (Student will plan and implement a community health program.)

PHLT 4308 Program and Evaluation and Problem Solving: 3 semester hours.

This course focuses on the evaluation of psycho-social-cultural health problems and influences on human behavior and health education strategies and outcome measurement.

PHLT 4313 Research Methodology: 3 semester hours.

This course provides students with fundamental principles of research methodologies relevant to public health research. We will review a range of methodologies, including randomized controlled trials, observational studies, and mixed-method approaches. We will develop enhanced capacity to understand and critically appraise data from scientific studies.

PHLT 4389 Internship Capstone: 3 semester hours.

An internship will consist of meaningful work experience in the public health field. This context of experiential learning is designed for professional development as course content is integrated into work experience. Students also significantly contribute to area organizations through an internship. Prerequisites: PHLT 1310 and PHLT 3305.

General Studies, BA, BS

Bachelor of Arts and Bachelor of Science in General Studies, Degree Program Requirements

Complete Core Curriculum Listing at <https://catalog.pvamu.edu/universitycorecurriculum/>

Core Curriculum 42 Credit Hours ¹

Communication		6
ENGL 1301	Freshman Composition I	
ENGL 1302	Freshman Composition II	
Mathematics ¹		3
MATH 1332	Contemporary College Algebra	
or MATH 1314	College Algebra	
Life and Physical Sciences (Select Two)		6
Language, Philosophy, and Culture (Select One)		3
Creative Arts (Select One)		3
American History (Select Two)		6
Government/Political Science		6
POSC 2305	American Government	
POSC 2306	Texas Government	
Social and Behavioral Sciences (Select One)		3
Component Area Option One (Select One)		3
Component Area Option Two (Select One)		3
Foreign Language (6 SCH of one language) or 6 SCH of GNST 2301 Coding and App Development and GNST 3302 iOS App Development		6
Language and Communications Requirements		3
ENGL 2311	Technical and Business Writing	
or ENGL 2314	Advanced Composition	
Major Requirements ²		9
GNST 3310	Multidisciplinary Seminar	
GNST 4310	Diversity & Global Learning	
GNST 4320	Multidisciplinary Capstone	
Concentration I ³		21
Concentration II ³		21
Unrestricted Electives		18
Total Hours		120

¹ MATH REQUIREMENT: BA in GNST requires MATH 1332 or MATH 1314. BS in GNST requires MATH 1314; additionally, one advanced level (3-4 SCH) mathematics course above MATH 1314 is advised to meet prerequisites in STEM concentrations.

² Major requires 9 SCH

³ CONCENTRATION REQUIREMENT: Consult with your academic advisor. 9 SCH in each 21 SCH concentration must be upper division (3000 or 4000 level) with the same course prefix unless approved by the Dean of Undergraduate Studies

Bachelor of Arts and Bachelor of Science in General Studies, Degree Sequence

Core: <https://catalog.pvamu.edu/universitycorecurriculum/> (<https://catalog.pvamu.edu/universitycorecurriculum/>)

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Communication Core ENGL 1301		3 Communication Core ENGL 1302	3
Mathematics Core		3 American History Core	3
Life and Physical Sciences Core		3 Life and Physical Sciences Core	3
Language, Philosophy, and Culture Core		3 Creative Arts Core	3
Component Area Option One Core		3 Government/Political Science Core POSC 2305	3
Total		15 Total	15

Total Hours: 30

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Component Area Option Two Core		3 Concentration I Requirement	3
American History Core		3 Concentration II Requirement	3
Government/Political Science Core POSC 2306		3 Unrestricted Elective Unrestricted Elective	3
Concentration I Requirement		3 ENGL 2311	3
Social and Behavioral Science Core		3 or ENGL 2314	
Total		15 Total	15

Total Hours: 30

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
GNST 3310		3 GNST 4310	3
Foreign Language Requirement I or GNST 2301		3 Foreign Language Requirement II or GNST 3302	3
Concentration I Requirement		3 Concentration I Requirement	3
Concentration II Requirement		3 Concentration II Requirement	3
Unrestricted Elective		3 Concentration II Requirement	3
Total		15 Total	15

Total Hours: 30

Senior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Concentration I Requirement (3000 or 4000 level)		3 GNST 4320	3
Concentration I Requirement (3000 or 4000 level)		3 Concentration I Requirement (3000 or 4000 level)	3
Concentration II Requirement (3000 or 4000 level)		3 Concentration II Requirement (3000 or 4000 level)	3
Unrestricted Elective		3 Concentration II Requirement (3000 or 4000 level)	3
Unrestricted Elective		3 Unrestricted Elective	3
Total		15 Total	15

Total Hours: 30

Name	Unit
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Total Semester Credit Hours: 120

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

BA/BS General Studies

Degree Skills

1. Written and verbal communication
2. Content writing
3. Critical thinking

Concentration Skills

1. Research review
2. Research writing

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 and computer science; and to service 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:

Program	Degree Offered
Chemical Engineering	BS
Civil Engineering	BS
Computer Engineering	BS
Computer Information Systems	MS
Computer Science	BS, MS
Electrical Engineering	BS, MS, PhD
Engineering	MS
Mechanical Engineering	BS

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.

University Core Curriculum For Engineering Programs

The core curriculum concept provides for the 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.

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 levels) courses in the Roy G. Perry College of Engineering. 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.

Supporting Facilities

Research Centers

The Center of Excellence in Research and Education for Big Military Data Intelligence (CREDIT) (<http://credit.pvamu.edu/>)

The CREDIT center is a research center targeting mission-critical big data analytics and platforms with a five-million-dollar seed funding from the US Department of Defense (DOD). The center's research focus includes deep learning, big data analytics, wireless sensor networks, data security, and the Internet-of-Things (IoT). CREDIT center has a multidisciplinary team of faculty researchers from Electrical and Computer Engineering and Computer Science, research scientists and postdocs, and many graduate and undergraduate research assistants. This center is supported by 3 labs: the Deep Learning Lab, the Cloud Computing Lab, and the Wireless Communications Lab. The Deep Learning Lab in this center features four NVIDIA DGX-1 Deep Learning systems totaling 32 Tesla P100 GPUs with 114,688 CUDA cores, 2,752 GB memory, and 244 TB HDD. Each DGX-1 system has eight Tesla P100 GPU accelerators connected through NVLink, the NVIDIA high-performance GPU interconnect, in a hybrid cube-mesh network. Together with dual socket Intel Xeon CPUs and four 100 Gb InfiniBand network interface cards, DGX-1 provides unprecedented performance for deep learning. Moreover, the DGX-1 system software and powerful libraries are tuned for scaling deep learning on its network of Tesla P100 GPUs to provide a flexible and scalable platform for deep learning.

The Center of Excellence for Cybersecurity (SECURE) (<https://securecenter.pvamu.edu/>)

The SECURE Center is focused on developing novel protocols to ensure cybersecurity in multiple environments—communications and networks, power grid, social networking in virtual space, cloud computing, and video analytics. It is also engaged in developing sensitive techniques for malware and virus detection and elimination. The center develops innovative technologies such as hardware/software co-design, novel low-cost security primitives, and AI solutions for malicious behavior detection. Another area of emphasis is information (video, image, text and audio) steganography using discrete wavelet transform and artificial intelligence. This center is supported by 5 labs: Network Security lab, IoT Security Lab, Hardware Security Lab, IP Networking Lab, and Wireless Security Lab.

The Smart MicroGrid Advanced Research and Technology Center (SMART) (<https://www.pvamu.edu/smartgrid/>)

The vision of the SMART Center is to create multitude of smart microgrids in the world that are reliable, sustainable, secure and more environmentally safe. The center is focusing on the following areas: (i) enhancing the power quality for the microgrid, (ii) optimizing the electromagnetic compatibility (EMC) of electronic devices in the microgrid, (iii) providing secure and robust data collection and exchange in the microgrid, (iv) designing novel fault detection, protection, and control of the microgrid, and (v) designing a test bed for experimental validation. The center is currently working on the following projects: 1) Modeling and Simulation of Low-Cost and High-Efficiency Solar Cells for the Microgrid, 2) Novel Model Predictive Control for Electrical Machine Drives Considering Circuit Faults, 3) Microgrid Distribution Power Flow Controller (DPFC) Based on Fuzzy and ANFIS Techniques, 4) Maximum Power Point Tracker (MPPT) Improvement for Energy Harvesting Systems, 5) Effects of Electromagnetic Interference on the Smart Grid, and 6) Electric Load Forecasting using Smart Meter Data.

The Center for Computational Systems Biology (CCSB@PVAMU) (<https://ccsb.pvamu.edu/>)

The CCSB center is a multidisciplinary center which studies complex biological processes such as cancer, head injury in football, Parkinson's disease, pulmonary hypertension, and herbicide-resistant weeds, by employing state-of-the-art computational and engineering skills. External collaborations include Translational Genomics Research Institute, Salk Institute, University of Pittsburg Medical Center, and the University of Cambridge. The Center is supported by funds from the CRI, NCI/NIH, Stand up To Cancer (SU2C), NSF, and Michael J. Fox Foundation (MJFF).

Center for High Pressure Combustion in Microgravity (<https://www.pvamu.edu/research/post/college-of-engineering-awarded-3-million-grant/>)

This NASA center consist of a multidisciplinary team of researchers from the College of Engineering, the College of Agriculture & Human Science and the College of Arts & Science focus on the science and engineering of fuel combustion under high pressure in microgravity representative of practical engines. The project, emphasizes both experimental and numerical approaches, is part of NASA's efforts to guide advanced engine designs to improve overall engine performance to keep the nation's leadership in engineering and science areas.

The Center for Energy and Environmental Sustainability (CEES) (<https://www.pvamu.edu/cees/>)

The CEES center was established with seed funding in the amount of \$5M in 2010. The Center for Energy & Environmental Sustainability (CEES) conducts research in the areas of renewable energy and environmental sustainability. An area of focus for this center is biofuels research which include in-depth fundamental studies to understand the reaction pathways of fast pyrolysis and how they affect the final composition of bio-oil and other by-products as process variables are varied in an effort to improve yields and quality of specific chemical species present in the bio-oil.; design of biofuels reactors for process and yield investigation of catalytic pyrolysis of biomass into biofuels and the development of catalytic conversion strategies for upgrading bio-oil to useful fuels. Additional research involves TGA reaction kinetics study of the pyrolysis process for different biomass.

The Center of Excellence for Communication Systems Technology Research (CECSTR) (<https://www.pvamu.edu/cecstr/>)

This center received seed funding from Texas Instruments to conduct comprehensive research in the selected aspects of communication systems, Wavelets and Wavelet Transforms, Compressed Sensing/Compressive Sampling Systems, DSP Solutions, Signal/Image/Video Processing, Mixed Signal Systems, Communication Control Systems and High Speed (Broadband) Communication Systems. Among other emerging areas of research, it also seeks solutions to the problems that plague both military and commercial satellite and radar-based communication systems.

The Thermal Science Research Center (TSRC) (<http://www.pvamu.edu/tsrc/>)

The TSRC is focused on the design and development of physical models to couple heat transfer measurements and modeling, single-phase and two-phase flow measurements and correlation development, interdisciplinary design and development of enclosed natural convection modeling and measurements, and mixed convection modeling. Research results are of importance to fusion reactions, cooling of electronic components, and other high heat flux applications, such as magnetic fusion plasma-facing components, rocket and propulsion systems.

The Future Aerospace, Science and Technology (FAST) (<https://www.pvamu.edu/me/wp-content/uploads/sites/100/fast.pdf>)

The FAST Center is dedicated to the development, processing, and characterization of lightweight and high-temperature structural materials and nanomaterials with emphasis on research, education, and technology transfer. Research activities include the processing, characterization, and environmental simulation of nanocomposites for use in both military and civilian applications.

The Texas Gulf Coast Environmental Data (TEXGED) (<https://www.pvamu.edu/engineering/research/texged/>):

This Center collects data from space through NASA for predicting environmental changes in the region and for developing a methodology for ecosystem risk assessment. The Center also uses remote sensing data in detecting the sea surface temperature in the Gulf of Mexico to study its impact on biological activities. The TEXGED Center aims at collecting and analyzing data regarding environmental problems such as alteration and loss of habitats, water pollution, air pollution, flooding and hurricanes, climatic changes and degradation and loss of green spaces.

The Center for Radiation Engineering and Science for Space Exploration (CRESSE) (<https://www.pvamu.edu/cresse/>)

The CRESSE center is focused on developing materials and technologies that would keep astronauts and their critical electronic equipment safe from the effects of harmful space radiation. The Center carries out research in the area of developing space radiation detection systems in testbed zones during exposures at particle accelerator facilities and obtaining detailed dosimetry data and particle spectroscopy data for use in prediction of risks of space radiation in environment and health.

PAST PERFORMANCE

Several of the research centers have become nationally recognized. All of the center researchers have published papers in peer reviewed journals and conferences at both the national and international levels. The centers have secured funding from industry and various government agencies including NSF, NIH, DOD, DOE, NASA, Apple, .Google, IBM, and Chevron

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 (<https://www.pvamu.edu/engineering/departments/five-year-bsms-programs/>) can be obtained in the Dean's Office or on the homepage of the College of Engineering website (<https://www.pvamu.edu/engineering/>).

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

- Computer Science/Computer Science
- Computer Science/Computer Information Systems
- Computer Engineering/Electrical Engineering
- Electrical Engineering/Electrical Engineering
- Chemical Engineering/Engineering
- Civil Engineering/Engineering
- Mechanical Engineering/Engineering

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 habits of successful people).

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 the environment. More information on the center is available at www.pvamu.edu/cees (<http://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

CHEG 3311	Introduction to Energy Systems	3
CVEG 4305	Special Topics ¹	3
MCEG 3312	Renewable Energy and Energy Sustainability	3
Electives (select 9 hours from the following options):		9

CHEG 4310	Special Topics in Chemical Engineering ¹	3
ELEG 4301	Electromechanical Energy Conversion	3
ELEG 4302	Power Systems Engineering	3
ELEG 4322	Electronic and Photonic Materials and Devices	3
MCEG 4316	Special Topics ¹	3
Other energy related courses approved by the College		

Total Hours **33**

¹ This special topics course may be repeated when the topic varies and is related to broader energy engineering or environmental sustainability or as approved by the advisor.

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 University 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 University chapter of the **National Society of Black Engineers (NSBE)** 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.

The Prairie View A&M University (PVAMU) **Engineers Without Borders (EWB)-USA** Student Chapter was established in September 2020. The PVAMU EWB-USA Student Chapter's mission is to build a better world through sustainable development projects that empower communities to meet their basic human needs. Volunteer professionals from outside the PVAMU campus have been recruited to serve as prospective project mentors, thus ensuring that the Chapter's technical knowledge and resources are available to solve the world's most pressing challenges faced by vulnerable domestic and international communities. PVAMU EWB-USA Student Chapter is open to undergraduate and graduate students representing a variety of backgrounds, interest, and skill sets from the various academic majors offered at PVAMU. These majors include engineering, medicine and public health, sociology, language, business, and other areas.

The Chemical Engineering, Civil Engineering, Computer Science, Computer Engineering, Electrical Engineering, and Mechanical Engineering programs are accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

The Computer Science program is accredited by the Computing Accreditation Commission of ABET, <http://www.abet.org>.

For more information about specific programs see the links below.

- Chemical Engineering Accreditation (<https://www.pvamu.edu/cheg/accreditation/>)
- Civil Engineering Accreditation (<https://www.pvamu.edu/cee/accreditation/>)
- Computer Science Accreditation (<https://www.pvamu.edu/engineering/departments/cs/undergraduate/accreditation/>)
- Computer Engineering Accreditation (<https://www.pvamu.edu/ece/accreditation/>)
- Electrical Engineering Accreditation (<https://www.pvamu.edu/ece/accreditation/>)
- Mechanical Engineering Accreditation (<https://www.pvamu.edu/me/accreditation/>)

College of Engineering, Graduate

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. For more information on our discipline-specific graduate programs:

- Department of Computer Science (p. 389)
- Department of Electrical and Computer Engineering (p. 410)

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 Graduate Studies.
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 a previous educational background in the intended area of study.

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. 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.
7. Submit a personal statement describing the applicant's academic or professional accomplishments, research interest, and professional goals.
8. International students may be required to take the Test of English as a Foreign Language (TOEFL); a score of 550, or higher, is required.

Engineering, MS

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 ¹

Select four of the following:

12

GNEG 5306	Engineering Analysis I
GNEG 5307	Engineering Analysis II
GNEG 5304	Engineering Probability and Statistics
GNEG 5313	Engineering Numerical Methods
GNEG 5319	Special Topics ³

Option (Select one below)	18
Thesis Option	
GNEG 5608	Thesis
Technical Electives (12 hours of graduate level courses identified based on concentration and in consultation with advisor)	
Non-Thesis Option	
GNEG 5320	Graduate Internship ⁴
or GNEG 5330	Graduate Project
Technical Electives (15 hours of graduate level courses identified based on concentration and in consultation with advisor)	
Total Hours	30

¹ The student must consult his/her academic advisor and take at least two courses in GNEG 5306, GNEG 5307, GNEG 5304, and GNEG 5313.

² Prior approval by the Degree Program Head is required for taking the Graduate Internship.

³ GNEG 5319 may be repeated when topic changes.

⁴ Select either GNEG 5320 for an internship or GNEG 5330 for a project.

Master of Science in Engineering Degree Sequence

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
General Engineering Requirement		3 General Engineering Requirement	3
General Engineering Requirement		3 General Engineering Requirement	3
Technical Elective		3 Technical Elective	3
Total		9 Total	9
Total Hours: 18			

Second Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Technical Elective		3 Option	6
Technical Elective		3 Thesis Option	
		GNEG 5608	
		Non-Thesis Option	
		GNEG 5320	
		or GNEG 5330	
Total		6 Total	6
Total Hours: 12			

Name	Unit
Total Semester Credit Hours: 30	

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

MSENGR Engineering

Degree Skills

1. Ability to use a logical and creative approach to solve complex engineering problems
2. Ability to plan, design, and organize complex projects
3. Advanced oral and written communication skills related to technical subject matter

Concentration Skills

1. Hypothesis-driven research formulation and execution
2. Ability to use or develop data science analytics tools

3. Advanced mathematical and analytical skills that are applicable to one or more of Chemical Engineering, Civil Engineering, Mechanical Engineering, or Electrical and Computer Engineering, and Computer Science

Co-curricular and Extracurricular Skills

1. Interpersonal skills that promote collaboration and emphasize behavior and conflict resolution
2. Industrial and practical experience through internships and sponsored projects
3. Experience with preparing and delivering results at technical and scientific conferences

Department of Chemical Engineering

Overview

Chemical Engineering is unique in the engineering profession, which requires a strong foundation in chemical principles and the physical and engineering sciences that are common to all branches of engineering. An education in Chemical Engineering is one of the broadest of all fields of engineering. A chemical engineer has a variety of titles such as process engineer, process safety engineer, production engineer, environmental engineer, process control engineer, petroleum engineer, or quality engineer.

Chemical process industries supply society with a vast array of products such as specialty chemicals, renewable energy sources, fuels, polymers, semiconductors, foods, pharmaceuticals, textiles, and many other materials. A chemical engineer may find employment in all phases of these technical operations. In today's society, chemical engineers play a critical role in energy and environmental sustainability including the reduction of carbon emissions. Chemical engineers may also find employment in areas such as process safety, advanced materials, additive manufacturing, and biomedical engineering.

Mission and Goals

The mission of the Department of Chemical Engineering at the Roy G. Perry College of Engineering 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
- The development of the student's perception and creative faculties

Chemical Engineering as a Minor Field

Requirements for Chemical Engineering as a Minor Field

Students must complete 30 semester credit hours as listed below to satisfy the requirements for a minor in the discipline of chemical engineering.

CHEG 2301	Materials Science	3
CHEG 3301	Heat, Mass, and Momentum Transport ¹	3
CHEG 2333	Material and Energy Balances	3
CHEG 2334	Chemical Engineering Thermodynamics I	3
CHEG 3302	Unit Operations	3
CHEG 3305	Equilibrium Stage Separation Processes ¹	3
CHEG 3304	Chemical Engineering Thermodynamics II ¹	3
CHEG 3306	Chemical Reaction Kinetics and Reactor Design ¹	3
CHEG 4304	Chemical Process Design and Analysis ¹	3
Technical Elective (Any CHEG 3000 or 4000 level)		3
Total Hours		30

¹ Indicates course requirements not eligible to be met with courses used to meet major requirements.

Professional and Honor Societies

Student organizations play an important role in the professional development of chemical engineering students and the recognition of student academic achievements. Chemical engineering 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 (AIChE) - The student 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.

Omega Chi Epsilon - Beta Iota Chapter (OXE) - The chapter represents the Chemical Engineering Honor Society and is a member of the National Honor Societies. The objectives of this organization are to promote and recognize chemical engineering academic excellence, research, professionalism, integrity, character, and leadership among chemical engineering students.

American Nuclear Society - PV Chapter (ANS-PV) – 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 (SPE) - This student chapter is a part of the national Society of Petroleum Engineers organization. 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 (NOBCCHE) - This student 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.

Courses

CHEG 1101 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 1102.

CHEG 1102 Intro CHEG Lab: 1 semester hour.

Introduction to the chemical engineering profession, chemical engineering processes, common chemical engineering measurements with lab experiments, engineering disasters, risk and responsibility for safety.

Co-requisite: CHEG 1101.

CHEG 1202 Introduction to Computations in CHEG: 2 semester hours.

An introductory course of important chemical engineering concepts and computations. Students will learn how to classify problems based on their mathematical nature. Topics include basic introductory calculations involving material and energy balances, fluid flow phenomena, fundamental thermodynamics and kinetics, and introductory software and simulation tools such as Visual Basic and CHEMCAD.

Prerequisites: CHEG 1102 or CHEG 1021 and (MATH 2413 (may be taken concurrently) or MATH 1124).

CHEG 2215 Biochemical Engineering Fundamentals Lab: 2 semester hours.

This course consists of biochemical engineering laboratory experiments, with emphasis on biochemical reactors, mass transfer in bioreactors, microbial transformations and enzyme catalyzed reactions and their control. Measurement of maximum specific growth rate, saturation constants of substrates, kinetic constants of enzymes and characterization of immobilized enzymes will be carried out. Analysis oxygen absorption rates in shake-flasks in the study of control of respiration and fermentation in baker's yeast, kinetics of yeast growth, kinetics of free and immobilized enzyme reactions and operational decay constant and half-life of immobilized enzymes.

CHEG 2301 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 1304 or CHEM 1043) or (CHEM 1403 or CHEM 1034).

CHEG 2308 Engineering Economics: 3 semester hours.

Fundamental concepts of economic principles. Evaluation of technical alternatives, economic significance of technical proposals; interest, description, analysis, and forecasting.

Prerequisites: MATH 2413 or MATH 1124.

CHEG 2315 Introduction to Biochemical Engineering Fundamentals: 3 semester hours.

This course introduce 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 physiology. Subsequently, special emphasis is placed on applying engineering concepts to biological problems.

Prerequisites: CHEM 1304 or CHEM 1403.

CHEG 2316 Ethical Engineering in a Global Society: 3 semester hours.

An introductory view into how moral principles and standards are applied to the field of engineering. Students will learn how to navigate ethical problems. Topics include the responsibilities of an engineer, the code of conduct, ethical theories, ethics in the law, and case studies of engineering successes and failures.

Prerequisites: (CHEG 1101 or CHEG 1011) or (CVEG 1101 or CVEG 1011) or (ELEG 1101 or ELEG 1011) or (MCEG 1101 or MCEG 1011).

CHEG 2333 Material and Energy Balances: 3 semester hours.

Application of the laws of conservation of mass and energy to reacting and nonreaction simple and complex chemical systems. Application of both element and species balance to multiple reaction systems. Application of static fluid pressure measurements to safety hazards in vessels, process calculations involving safe handling of fuel-air mixtures between lower and upper flammability limits and purging of gases through relief valves. Application of the degree-of-freedom analysis to single process units and multi-unit process flow-sheets. Numerical solution techniques for the solution of balance equations.

Prerequisites: CHEM 1304 or CHEM 1043 or CHEM 1403 or CHEM 1034 and (PHYS 2325 or PHYS 2513) and (CHEM 1202 or CHEM 1022).

CHEG 2334 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: CHEG 2333 or CHEG 2053.

CHEG 2615 Chemical Engineering Internship I: 6 semester hours.

This course is an internship program of work experience with an approved engineering firm.

CHEG 3101 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. Study of elements and methods of scientific inquiry and investigation, experimental data analysis, modeling and simulation, and dissemination of scientific results, including: design of experiments, product and process design, model validation and verification, literature survey and review techniques, and effective technical reporting modes. Strong emphasis is placed on safety.

Prerequisites: PHYS 2125 or PHYS 2511 and (PHYS 2126 or PHYS 2521) and (CHEM 1112 or CHEM 1021) and (COMM 1311 or COMM 1003) and (ENGL 1302 or ENGL 1133 or ENGL 1143 or ENGL 2311) and (CHEG 3301 (may be taken concurrently) or CHEG 3013) and (CHEG 3304 (may be taken concurrently) or CHEG 3053) and (MATH 3302 (may be taken concurrently) or MATH 3023).

CHEG 3301 Heat, Mass, and Momentum Transport: 3 semester hours.

Macroscopic and differential balances for heat, mass, and momentum. Energy balances and mechanical energy balances. Ideal Newtonian and non-Newtonian fluid behavior. Comparison of the transport processes in laminar and turbulent flow. Dimensional analysis.

Prerequisites: (CHEG 2334 or CHEG 2043) and (MATH 2320 or MATH 2043).

CHEG 3302 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 2333 or (CHEG 2053 or CHEG 2305).

CHEG 3304 Chemical Engineering Thermodynamics II: 3 semester hours.

Properties of ideal and non-ideal binary and multi-component mixtures. Study of phase equilibria for single- and multi-component systems based on methods of corresponding states, equation of states and activity coefficient. Chemical equilibria applied to both homogeneous and heterogeneous systems.

Prerequisites: (CHEG 2043 or CHEG 2334).

CHEG 3305 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 2333 or CHEG 2053 and (CHEG 3304 or CHEG 3053).

CHEG 3306 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. Design of batch, semi-batch, CSTR, and tubular reactors, heat effects and runaway reaction prevention and introduction to heterogeneous catalysis.

Prerequisites: MATH 2320 or MATH 2043 and (CHEG 3304 or CHEG 3053) and (CHEG 2301 or CHEG 2013).

CHEG 3311 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-fueled energy will be investigated along with others such as hydropower, biofuels, and the developing renewable energy systems.

Prerequisites: (MATH 2414 or MATH 2024) and (PHYS 2326 or PHYS 2523) and ((CHEM 1403 or CHEM 1034) or (CHEM 1304 or CHEM 1043)).

CHEG 3312 Petroleum Engineering Fundamentals: 3 semester hours.

This course consists of an overview of petroleum industry and petroleum engineering including nature of oil and gas reservoirs, petroleum exploration and drilling, formation evaluation, well completions and production, surface facilities, reservoir mechanics, and improved oil recovery.

CHEG 3315 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: CHEM 1304 or CHEM 1043 or CHEM 1403 or CHEM 1034 and (CHEM 2303 or CHEM 2033).

CHEG 3615 Chemical Engineering Internship II: 6 semester hours.

This course is an internship program of work experience with an approved engineering firm.

CHEG 4101 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 3302 or CHEG 3023) and (CHEG 3304 or CHEG 3053) and (COMM 1311 or COMM 1003 and (ENGL 1302 or ENGL 1133) or ENGL 2311 or ENGL 1143) and (PHYS 2125 or PHYS 2511) and (PHYS 2126 or PHYS 2521) and (CHEM 1112 or CHEM 1021).

CHEG 4104 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 4303 or CHEG 4033 and (COMM 1311 or COMM 1003 or SPCH 1003) and (ENGL 1302 or ENGL 1133 or ENGL 1143 or ENGL 2311) and (PHYS 2125 or PHYS 2511) and (PHYS 2126 or PHYS 2521) and (CHEM 1112 or CHEM 1021).

CHEG 4247 Senior Design and Professionalism -I: 2 semester hours.

This is the first course of a two-semester capstone experience (CHEG 4248 must immediately follow 4247 or sequence must restart with 4247) 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 3301 or CHEG 3013) and (CHEG 3023 or CHEG 3302) and (CHEG 3043 or CHEG 3305) and (CHEG 3063 or CHEG 3306).

CHEG 4248 Senior Design and Professionalism - II: 2 semester hours.

A continuation of the CHEG 4247 course emphasizing the analysis and design of a complete chemical processes and prepares students for engineering practice. The team projects use chemical engineering and economic principles to solve design and optimization problems of chemical processing systems. Projects include extensive use of simulation packages such as ASPEN PLUS and use of hazard analysis techniques such as Hazard and Operability (HAZOP) studies determining an optimum selection of process variables .

Prerequisites: CHEG 4247 or CHEG 4472.

CHEG 4303 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 3306 or CHEG 3063) and (MATH 4317 or MATH 4173).

CHEG 4304 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 3301 or CHEG 3013) and (CHEG 3302 or CHEG 3023) and (CHEG 3305 or CHEG 3043) and (CHEG 3306 or CHEG 3063).

CHEG 4310 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 4312 Process Safety Engineering Fundamentals: 3 semester hours.

This course addresses aspects of chemical process safety and loss prevention, such as identification of potential hazards and hazardous conditions associated with processes and equipment involved in the chemical process industries. It includes methods of predicting the severity of the associated hazards and preventing, controlling or mitigating them. It emphasizes quantitative engineering analysis; techniques for performing process hazard analysis, risk assessment, and accident investigation are introduced.

CHEG 4313 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 4315 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 4318 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 3301 or CHEG 3013 and (CHEG 3302 or CHEG 3023) and (CHEG 3304 or CHEG 3053) and (CHEG 3306 or CHEG 3063).

CHEG 4321 Nuclear Science Fundamentals: 3 semester hours.

An interdisciplinary survey course introducing the basics of atomic and nuclear science, radiation physics and their relation to engineering problems and applications. Specific applications to nuclear materials, nuclear safety, nuclear forensics, radiation detection, radiation safety, and radiation effects on humans and technology. Technical background assumed is the standard physics, mathematics and chemistry required for an undergraduate engineering degree.

CHEG 4322 Nuclear Forensic Analysis: 3 semester hours.

The course introduces methods important to the investigation of nuclear materials to identify the source, trafficking mode, and level of enrichment of particular nuclear materials recovered from various sources such as dust at a nuclear facility locale, or post-nuclear explosion debris. Topics include radiochemistry review, nuclear applications for power and defense, contemporary issues in forensics and proliferation, methods for forensics analysis, and case studies.

CHEG 4399 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 5301 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 5302 Microelectronics Materials: 3 semester hours.

Heterogeneous chemical reactions. Chemical engineering aspects of materials fabrication and processing. CVD thin film deposition techniques. Preparation of superconducting powders. Composites. Modeling and practical applications.

CHEG 5303 Environmental Processes: 3 semester hours.

Fundamentals of environmental engineering, chemistry, physical-chemistry and transport properties. Energy and mass balances. Reactions and reactors. Biological processes. Bioremediation.

CHEG 5304 Remediation Technologies: 3 semester hours.

Fundamentals of environmental remediation. Physical-chemical processes. Bioremediation. Stabilization and solidification. Thermal methods. Site characterization. Risk assessment. Containment. Remedial Alternatives Applications to real contaminated sites.

CHEG 5305 Chemical Engineering Thermodynamics: 3 semester hours.

This is a survey course starting with a review of thermodynamic laws then proceeding to examine ways that thermodynamics apply to various systems from static to dynamic, inert to reactive, and ultimately from abiotic to living systems. The approach will be to engage in readings (articles, book chapters, media releases), viewings (lectures, photos, videos), discussion (face to face and web assisted), and project based design and evaluation activities.

CHEG 5306 Transport Phenomena: 3 semester hours.

Transport Phenomena provides a unified treatment of momentum, mass, and energy transport in chemical engineering problems. Vector and tensor notations and mathematics will be used in expressing equations of continuity, motion, energy. Further develops the foundations of transport phenomena to apply this knowledge to the solution of problems of interest to the engineer.

CHEG 5311 Petroleum Engineering: 3 semester hours.

This course examines the petroleum industry and petroleum engineering including nature of oil and gas reservoirs, petroleum exploration and drilling, formation evaluation, well completions and production, surface facilities, reservoir mechanics, and improved oil recovery.

CHEG 5312 Process Safety Engineering: 3 semester hours.

This course addresses multiple aspects of chemical process safety and loss prevention in chemical manufacturing. Includes methods of predicting severity of hazards and preventing/controlling/mitigating them. Emphasizes quantitative engineering analysis based on applications of engineering principles.

CHEG 5321 Nuclear Science: 3 semester hours.

The objective of this course is to explore the fundamental aspects of nuclear and radiochemistry, with emphasis on the determination of radioactive species and the application of nuclear processes, radioactive materials, and radiochemical techniques in major applications such as medicine, nuclear power, national defense, and threat reduction.

CHEG 5322 Nuclear Forensics: 3 semester hours.

This course develops nuclear forensic skills needed for potential future terrorist attempted or actual events. Students learn to answer the questions where did the nuclear material come from (attribution), what route did it follow to the interdiction site (route attribution), what route did it follow to the interdiction site (route attribution), how to safely collect nuclear materials for an interdiction site, how nuclear materials (pre-detonation and post-detonation) are analyzed, how to evaluate of pre-detonation nuclear materials' capabilities and how to interface with emergency response, law enforcement (FBI, UHP), Intelligence community, State Department and International Treaties.

Department of Chemical Engineering, Undergraduate

Program Overview

Chemical Engineering is unique in the engineering profession, which requires a strong foundation in chemical principles and the physical and engineering sciences that are common to all branches of engineering. An education in chemical engineering is one of the broadest in the engineering

field. The **mission** of the Department of Chemical Engineering in the Roy G. Perry College of Engineering 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.

The program educational objectives of the chemical engineering program are to produce graduates whose expected accomplishments within a few years of graduation are:

1. To achieve success in advanced studies, if they so choose, and pursue successful professional careers in new and emerging areas, as well as traditional chemical engineering areas.
2. To attain leadership roles in professional settings in field of choice, with high levels of competence, ethics, and safety consciousness.
3. To 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

Academic Major	Meet PVAMU Admission Standards	High School GPA	SAT/ACT	High School Rank	THEA Passed
Chemical Engineering	Yes	3.00	New SAT: 950/18		

Table 2. Transfer Students Requirements for Direct Admission to the Chemical Engineering Program

Academic Major	Meet PVAMU Admission Standards	Transfer Grades	Transfer GPA (Math; Science and Engineering)
Chemical Engineering	Yes	"C" or greater	2.50

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 (p. 354) college requirements.

Accreditation Status

The Chemical Engineering program is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

Chemical Engineering, BSCHE

Bachelor of Science in Chemical Engineering Degree Program Requirements

Complete Core Curriculum Listing at <https://catalog.pvamu.edu/universitycorecurriculum/>

Core Curriculum 42 Credit Hours

Communication		6
ENGL 1301	Freshman Composition I	
ENGL 2311	Technical and Business Writing	
Mathematics		3
MATH 2413	Calculus with Analytic Geometry I	
Life & Physical Sciences		6
PHYS 2325	University Physics I	
PHYS 2326	University Physics II	
Language, Philosophy & Culture (Select One)		3
Creative Arts (Select One)		3
American History		6
HIST 1301	United States History I	
HIST 1302	United States History II	
Government/Political Science		6
POSC 2305	American Government	
POSC 2306	Texas Government	
Social & Behavioral Sciences		3
CHEG 2308	Engineering Economics	
Component Area Option One		3
CHEG 2316	Ethical Engineering in a Global Society	

Component Area Option Two		3
COMM 1311	Introduction to Speech Communication	
College Requirements ¹		
CHEG 1101	Intro Engr, Comp Sci & Tech	1
CHEG 1102	Intro CHEG Lab	1
CHEG 2334	Chemical Engineering Thermodynamics I	3
CHEG 4247	Senior Design and Professionalism -I	2
CHEG 4248	Senior Design and Professionalism - II	2
CHEM 1112	General Chemistry Lab II	1
CHEM 1403	Chemistry for Engineers	4
OR		
CHEM 1303 & CHEM 1304	General Inorganic Chemistry I and General Inorganic Chemistry II	
CVEG 2400	Statics and Dynamics	4
ELEG 2315	Introduction to Electrical Engineering	3
MATH 2320	Differential Equations	3
MATH 2413	Calculus with Analytic Geometry I	1
MATH 2414	Calculus with Analytic Geometry II	4
MATH 3302	Probability and Statistics	3
MATH 4317	Advanced Math for Engineers	3
PHYS 2125	University Physics Lab I	1
PHYS 2126	University Physics Lab II	1
Major Requirements		
CHEG 1202	Introduction to Computations in CHEG	2
CHEG 2301	Materials Science	3
CHEG 2333	Material and Energy Balances	3
CHEG 3101	Chemical Engineering Laboratory I	1
CHEG 3301	Heat, Mass, and Momentum Transport	3
CHEG 3302	Unit Operations	3
CHEG 3304	Chemical Engineering Thermodynamics II	3
CHEG 3305	Equilibrium Stage Separation Processes	3
CHEG 3306	Chemical Reaction Kinetics and Reactor Design	3
CHEG 4101	Chemical Engineering Laboratory II	1
CHEG 4104	Chemical Engineering Laboratory III	1
CHEG 4303	Process Dynamics and Control	3
CHEG 4304	Chemical Process Design and Analysis	3
Support Area Requirements		
CHEM 2303	General Organic Chemistry I	3
CHEM 2304	General Organic Chemistry II	3
CHEM 3341	Physical Chemistry	3
Electives		11
Total Hours		131
Chemistry Electives		
3-Hour Advanced Chemistry Elective (select 3 hours from the following):		3
CHEM 3342	Physical Chemistry	
CHEM 4302	Forensic Chemistry	
CHEM 4303	Biochemistry	
CHEM 4305	Instrumental Analysis	
CHEM 4306	Inorganic Chemistry	
Or Another Course Approved by the Department		
2-Hour Chemistry Lab Elective (select from the following):		2
CHEG 2215	Biochemical Engineering Fundamentals Lab	

CHEM 2201	Quantitative Analysis	
CHEM 2203	Organic Chemistry Lab I	
CHEM 2204	Organic Chemistry Lab II	
CHEM 2211	Quantitative Analysis Lab	
CHEM 3242	Physical Chemistry Lab	
CHEM 3243	Physical Chemistry Lab	
CHEM 4203	Forensic Chemistry Lab	
CHEM 4204	Biochemistry Laboratory	
CHEM 4205	Instrumental Analysis Lab	
Technical Electives ²		6
CHEG 3311	Introduction to Energy Systems	
CHEG 3312	Petroleum Engineering Fundamentals	
CHEG 3315	Introduction to Biotechnology	
CHEG 4310	Special Topics in Chemical Engineering	
CHEG 4312	Process Safety Engineering Fundamentals	
CHEG 4313	Process Modeling and Simulation	
CHEG 4315	Bioengineering	
CHEG 4318	Design of Process Engineering Systems	
CHEG 4321	Nuclear Science Fundamentals	
CHEG 4322	Nuclear Forensic Analysis	
MCEG 4309	Finite Element Analysis and Design	
ELEG 3303	Physical Principles of Solid State Devices	
Total Hours		11

Bioengineering Concentration ³

CHEM 4303	Biochemistry	3
CHEM 4204	Biochemistry Laboratory	2
Technical Electives		6
CHEG 3315	Introduction to Biotechnology	
CHEG 4315	Bioengineering	
CHEG 4310	Special Topics in Chemical Engineering	
Total Hours		11

¹ Students must see their advisor to discuss prerequisites to major course requirements.

² Technical electives must be 3000 level or higher. All 6 hours must be in engineering. Internship and co-op courses are not suitable as technical electives.

³ All students in the Bioengineering concentration must complete a project that is Bioengineering related.

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 levels) 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 2.5 to be eligible to enroll in upper-division (3000 or 4000 levels) 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.

ENGL 2311	Technical and Business Writing	3
CHEM 1112	General Chemistry Lab II	1
CHEM 1403	Chemistry for Engineers	4

MATH 2413	Calculus with Analytic Geometry I	4
MATH 2414	Calculus with Analytic Geometry II	4
PHYS 2125	University Physics Lab I	1
PHYS 2325	University Physics I	3
CHEG 1202	Introduction to Computations in CHEG	2
CHEG 1101	Intro Engr, Comp Sci & Tech	1
CHEG 1102	Intro CHEG Lab	1

Bachelor of Science in Chemical Engineering Degree Sequence

Core: <https://catalog.pvamu.edu/universitycorecurriculum/>

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
Mathematics Core		4 MATH 2414		4 Government/Political Science Core	3
MATH 2413		CHEG 1202		2 POSC 2305	
CHEG 1101		1 CHEM 1403		4	
CHEG 1102		1 CHEM 1112		1	
COMM 1311		3 Life and Physical Sciences Core		3	
Component Area Option Two Core		3 PHYS 2325			
Communication Core		3 PHYS 2125		1	
ENGL 1301		Communication Core		3	
American History Core		ENGL 2311			
HIST 1301					
Total		15 Total		18 Total	3

Total Hours: 36

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours
CHEG 2301		3 CHEM 2304	3
CHEG 2333		3 Component Area Option One Core	3
CHEM 2303		3 CVEG 2304	
Life and Physical Sciences Core		3 CHEG 2334	3
PHYS 2326		ELEG 2315	3
PHYS 2126		1 CVEG 2400	4
MATH 2320		3	
Total		16 Total	16

Total Hours: 32

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
CHEM 3341		3 MATH 4317	3
CHEG 3301		3 CHEG 3101	1
CHEG 3302		3 CHEG 3305	3
CHEG 3304		3 CHEG 3306	3
Social and Behavioral Science Core		3 Restricted Elective	3
CHEG 2308		Restricted Elective	2
MATH 3302		3	
Total		18 Total	15

Total Hours: 33

Senior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
CHEG 4101		1 CHEG 4104	1
CHEG 4303		3 Restricted Elective	3
CHEG 4304		3 CHEG 4248	2
CHEG 4247		2 Language, Philosophy, and Culture Core	3
Restricted Elective		3 Creative Arts Core	3
American History Core		3 Government/Political Science Core	3
HIST 1302		POSC 2306	
Total		15 Total	15

Total Hours: 30

Name	Unit
Total Semester Credit Hours: 131	

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

BSCHE Chemical Engineering

Degree Skills

1. Strong interpersonal, oral, and written communication skills and the ability to communicate effectively with project team members
2. Strong analytical and problem-solving skills including the use of spreadsheets and computer simulation software in design
3. Maintain and raise their level of engineering competence and achievement by engaging in lifelong learning

Concentration Skills

1. Ability to collaborate and work effectively in a variety of teams, including multi-disciplinary teams
2. Attain leadership roles in professional settings with high levels of competence, ethics and safety consciousness
3. Successfully pursue advanced studies and/or professional careers in new and emerging areas, as well as traditional chemical engineering

Department of 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.

Requirements for Civil Engineering as a Minor Field

Students have the option for a Civil Engineering Minor. Students can use a maximum of 9 hours from their major towards the minor requirements.

Civil Engineering Minor

Students must complete 18 SCH to satisfy the minor requirements.

Required Courses

CVEG 2301	Engineering Mechanics I	3
CVEG 2332	Mechanics of Materials	3
CVEG 3303	Hydraulics	3

Technical Electives

Approved 3000 and 4000 level CVEG courses

9

Total Hours**18**

Honor Societies, Clubs, and Service Organizations

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.

Courses

CVEG 1101 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 1102.

CVEG 1102 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 1101.

CVEG 2100 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 1101 or CVEG 1011 and (CVEG 1102 or CVEG 1021).

CVEG 2101 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 1302 or ENGL 1133) or (ENGL 2311 or ENGL 1143) and (CVEG 2301 or CVEG 2043).

CVEG 2102 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 2413 or MATH 1124) and (CVEG 2304 or CVEG 2073).

CVEG 2301 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 2325 or PHYS 2513.

CVEG 2302 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 2301 or CVEG 2043.

CVEG 2304 Global Development Issues: 3 semester hours.

An overview of global development issues and their importance. Global and regional developing goals, history, implementation and impact. Global and local dimensions of development, and the concept of sustainability. Ethical dimensions of development, management concepts for projects and related issues. Global issues related to energy, the environment, and the food-energy-water (FEW) nexus. Audience-appropriate visualization and documentation.

CVEG 2332 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 2301 or CVEG 2043) or (CVEG 2454 or CVEG 2400)) and (MATH 2414 or MATH 2024).

CVEG 2400 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 2325 or PHYS 2513.

CVEG 3100 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 2332 or CVEG 2063) and (CVEG 2101 or CVEG 2061).

CVEG 3102 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 3302 or MATH 3023 and (MATH 4317 or MATH 4173) and (CVEG 3300 or CVEG 3023) and (CVEG 3100 or CVEG 3031) and (CVEG 3301 or CVEG 3043) and (CVEG 3302 or CVEG 3053) and (CVEG 3303 or CVEG 3063) and (CHEG 2308 or CHEG 2003).

CVEG 3300 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 2101 or CVEG 2061 and (CVEG 2332 or CVEG 2063).

CVEG 3301 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 1403 or CHEM 1034) or (CHEM 1303 or CHEM 1033) and (CHEM 1304 or CHEM 1043) and (CHEM 1112 or CHEM 1021) and (BIOL 1307 or BIOL 1073) or (BIOL 1308 or BIOL 1113) or (BIOL 1309 or BIOL 1123).

CVEG 3302 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 2320 (may be taken concurrently) and (CHEG 2308 or CHEG 2003) and (CVEG 2102 or CVEG 2081) and (COMM 1311 or COMM 1003).

CVEG 3303 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 2301 or CVEG 2043.

CVEG 3304 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 2332 or CVEG 2063.

CVEG 3305 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 3304 or CVEG 3073.

CVEG 3600 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 4100 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 3300 or CVEG 3023.

CVEG 4200 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 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: (CVEG 3300 or CVEG 3023) and (CVEG 3301 or CVEG 3043) and (CVEG 3302 or CVEG 3053) and (CVEG 3303 or CVEG 3063) and (CVEG 3304 or CVEG 3073).

CVEG 4201 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 4200 or CVEG 4472.

CVEG 4300 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 3100 or CVEG 3031) and (CVEG 3073 or CVEG 3304).

CVEG 4301 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 3301 or CVEG 3043.

CVEG 4302 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 3302 or CVEG 3053.

CVEG 4303 Water Resources Engineering: 3 semester hours.

Control and utilization of water; flood control; water distribution systems; open channel flows; and hydraulic structures.

Prerequisites: CVEG 3303 or CVEG 3063.

CVEG 4304 Systems Engineering: 3 semester hours.

Formulation and solution of engineering optimization problems with uncertainty factors; inclusion of sensitivity and risk analyses in optimization problems; topics in engineering management.

Prerequisites: MATH 3302 or MATH 3023 and (CVEG 3302 or CVEG 3053).

CVEG 4305 Special Topics: 3 semester hours.

Selected current and emerging topics in Civil Engineering depending on need determined by the department.

CVEG 4399 Independent Study: 1-3 semester hour.

Readings, research, and/or field work in selected topics.

CVEG 4600 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 5300 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 5301 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 5302 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 5303 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 5304 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 5305 Prestressed Concrete Design: 3 semester hours.

Principles and concepts of design in prestressed concrete including materials behavior, prestress loss, elastic and ultimate strength analyses for flexure, shear, torsion, bond and deflection.

CVEG 5306 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 5307 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 5320 or GNEG 5302.

CVEG 5309 GEOSCIENCES and GEOSPATIAL INFORMATION: 3 semester hours.

Introduction of geosciences concepts for information management. Basic concepts in geosciences including Geographic Information Systems (GIS) and the application of geospatial analysis methods in engineering.

CVEG 5322 Design of Bridges: 3 semester hours.

Design of reinforced concrete and prestressed concrete, steel beam, continuous beam girder bridges; introduction to design of piers, abutments and bearings; bridge construction and fabrication.

Prerequisites: CVEG 5213 or CVEG 5305.

CVEG 5363 Advanced Foundation Design: 3 semester hours.

Introduction to Foundation Engineering, Subsoil Exploration techniques, Design of Shallow and Deep Foundation.

Department of Civil and Environmental Engineering, Undergraduate

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

Academic Major	Meet PVAMU Admission Standards	High School GPA	SAT/ACT	High School Rank	THEA Passed
Civil Engineering	Yes	3.00	New Sat: 950/18		

Table 2. Transfer Students Requirements for Admission to the Civil Engineering Program

Academic Major	Meet PVAMU Admission Standards	Transfer Grades	Transfer GPA (Math; Science and Engineering)
Civil Engineering	Yes	"C" or greater	2.50

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 (p. 354) college requirements.

Accreditation Status

The Civil Engineering program is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

Civil Engineering, BSCE

Bachelor of Science in Civil Engineering Degree Program Requirements

Complete Core Curriculum Listing at <https://catalog.pvamu.edu/universitycorecurriculum/>

Core Curriculum 42 Credit Hours

Communication (Select Two)		6
Mathematics		3
MATH 2413	Calculus with Analytic Geometry I	
Life and Physical Sciences (Select Two)		6
Language, Philosophy, and Culture (Select One)		3
Creative Arts (Select One)		3
American History (Select Two)		6
Government/Political Science		6
POSC 2305	American Government	
POSC 2306	Texas Government	
Social and Behavioral Science		3
CHEG 2308	Eco Anal Technical Application	
Component Area Option One		3
CVEG 2304	Global Development Issues	
Component Area Option Two (Select One)		3

College Requirements

MATH 2320	Differential Equations	3
MATH 2413	Calculus with Analytic Geometry I	1
MATH 2414	Calculus with Analytic Geometry II	4
MATH 3302	Probability and Statistics	3
MATH 4317	Advanced Math for Engineers	3
CHEM 1112	General Chemistry Lab II	1
CHEM 1403	Chemistry for Engineers	4
OR		
CHEM 1303 & CHEM 1304	General Inorganic Chemistry I and General Inorganic Chemistry II	
PHYS 2125	University Physics Lab I	1
PHYS 2126	University Physics Lab II	1
CVEG 1101	Intro Engineering & Comp Sci	1
CVEG 1102	Introduction to Civil Engineering Lab	1
ELEG 1304	Computer Applications in Engineering	3
ELEG 2315	Introduction to Electrical Engineering	3
MCEG 2301	Thermodynamics I	3
CVEG 2301	Engineering Mechanics I	3
CVEG 3102	Professional Engineering I	1
CVEG 4200	Senior Design and Professionalism - I	2
CVEG 4201	Senior Design and Professionalism - II	2

Major Requirements

CVEG 2101	Materials and Dynamics Lab	1
CVEG 2332	Mechanics of Materials	3
CVEG 2102	Surveying and Geospatial Concepts	1
CVEG 3300	Geotechnical Engineering	3
CVEG 3100	Concrete and Steel Laboratory	1

CVEG 3301	Environmental Engineering	3
CVEG 3302	Transportation Engineering	3
CVEG 3303	Hydraulics	3
CVEG 3304	Structural Analysis	3
CVEG 3305	Steel Design	3
CVEG 4300	Reinforced Concrete	3
CVEG 4100	Geotechnical Engineering Design Laboratory	1
CVEG 4301	Environmental Engineering Design	3
CVEG 4302	Transportation Engineering Design	3
CVEG 4303	Water Resources Engineering	3
CVEG 4304	Systems Engineering	3
Science Elective (Select one from the list below):		3
BIOL 1307	General Microbiology	
BIOL 1308	Biology for Non-Science Major I	
BIOL 1309	Biology for Non-Science Majors II	
Technical Electives (CVEG or Other)		3
Total Hours		128

Civil Engineering Suggested Technical Electives

ARCH 4344	CAD Construction Documents and Codes	3
CVEG 4305	Special Topics	3
MATH 4306	Numerical Analysis	3
MATH 4308	Advanced Calculus I	3
MCEG 4306	Dynamic Systems and Controls	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 Special Programs (p. 356)), 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 levels) 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 levels) 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 1101	Intro Engineering & Comp Sci	1
CVEG 1102	Introduction to Civil Engineering Lab	1
CHEM 1403	Chemistry for Engineers	4
CHEM 1112	General Chemistry Lab II	1
ENGL 2311	Technical and Business Writing	3
PHYS 2325	University Physics I	3
PHYS 2125	University Physics Lab I	1
MATH 2413	Calculus with Analytic Geometry I	4
MATH 2414	Calculus with Analytic Geometry II	4
ELEG 1304	Computer Applications in Engineering	3

Bachelor of Science in Civil Engineering Degree Sequence

Core: <https://catalog.pvamu.edu/universitycorecurriculum/>

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Communication Core		3 Communication Core	3
Mathematics Core		4 MATH 2414	4
MATH 2413		ELEG 1304	3
CHEM 1403		4 Life and Physical Sciences Core	3
CHEM 1112		1 Component Area Option One Core	3
CVEG 1101		1 CVEG 2304	
CVEG 1102		1 PHYS 2125	1
Science Elective		3	
Total		17 Total	17

Total Hours: 34**Sophomore**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
MATH 2320		3 ELEG 2315	3
Life and Physical Sciences Core		3 MCEG 2301	3
PHYS 2126		1 MATH 3302	3
Social and Behavioral Science Core		3 CVEG 2332	3
CHEG 2308		CVEG 2101	1
CHEG 2301		3 CVEG 3302	3
Component Area Option Two Core		3	
CVEG 2102		1	
Total		17 Total	16

Total Hours: 33**Junior**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
MATH 4317		3 CVEG 3300	3
CVEG 3304		3 CVEG 3305	3
Language, Philosophy, and Culture Core		3 CVEG 4304	3
CVEG 4302		3 CVEG 3301	3
CVEG 3100		1 CVEG 4303	3
CVEG 3303		3	
Total		16 Total	15

Total Hours: 31**Senior**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
CVEG 4300		3 American History Core	3
CVEG 4301		3 Creative Arts Core	3
CVEG 4200		2 CVEG 3102	1
CVEG 4100		1 CVEG 4201	2
American History Core		3 Government/Political Science Core	3
Government/Political Science Core		3 POSC 2306	
POSC 2305		Technical Elective	3
Total		15 Total	15

Total Hours: 30

Name	Unit
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Total Semester Credit Hours: 128

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

BSCE Civil Engineering

Degree Skills

1. Ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. Ability to communicate effectively with a range of audiences
3. Ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives

Co-curricular and Extracurricular Skills

1. Teamwork
2. Leadership
3. Project management

Department of 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 society.

The Department of Computer Science offers the following degree programs:

Program	Degree Offered
Computer Science	BS, MS
Computer Information Systems	MS

Requirements for Computer Science as a Minor Field

COMP 1121	Computer Science Lab I	1
COMP 1336	Computer Science I	3
COMP 1122	Computer Science Lab II	1
COMP 1337	Computer Science II	3
COMP 2336	Data Structures	3
COMP 2310	Discrete Structures	3
MATH 2413	Calculus with Analytic Geometry I	4
MATH 2414	Calculus with Analytic Geometry II	4
Three upper-level computer science elective courses		9
Total Hours		31

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 full-time 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 better. Any student having completed 64 semester hours of course work (18 hours of core computer science courses) is eligible for consideration.

Computer Information Systems Courses

CINS 5301 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 5304 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 5305 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 or COMP 1422.

CINS 5306 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: CINS 1224 or CINS 1422.

CINS 5307 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 5317 Information Retrieval: 3 semester hours.

An introduction to information retrieval theory and algorithms. The topics include indexing, vector space models, evaluation, probabilistic and language models, web search engine, text classification, link analysis, XML retrieval, etc. with their implementation and applications.

Prerequisites: CINS 5306 or CINS 5063.

CINS 5318 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 subsystem definition and design, abstraction, information hiding, modularity, and reuse.

Prerequisites: CINS 5306 or CINS 5063.

CINS 5319 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 or CINS 5306 and (CINS 5033 or CINS 5305).

CINS 5330 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 5331 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 5304 or CINS 5043) and (CINS 5306 or CINS 5063).

CINS 5338 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 process are discussed, along with techniques for managing software products from concept through development.

Prerequisites: CINS 5305 or CINS 5033 and (CINS 5306 and CINS 5063).

CINS 5391 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 5398 Special Topics in Computer Information Systems: 3 semester hours.

A course design to expose new and emerging concepts and technologies.

Prerequisites: CINS 5306 or CINS 5063.

CINS 5690 Master 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.

Computer Science Courses**COMP 1101 Intro to Basic Engr & Comp Sci: 1 semester hour.**

Intro to basic engineering and computer science concepts. Students will become aware of various discipline of engineering and computer science, ethical and professional responsibilities in these fields, creativity and design. It also prepares students for professional engineering world. Provides career planning tools; discusses expected and financial goals and how such goals contribute to short-and-long term personal, professional, academic, and financial goals. Professional, ethical, and moral behavior and proper communication for the workplace.. This course enables engineers to take full advantage of internships, co-ops, engineering jobs, and the classroom.

Prerequisites: COMP 1021 (may be taken concurrently) or COMP 1102 (may be taken concurrently).

COMP 1102 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 1101 or COMP 1011.

COMP 1121 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 1316 (may be taken concurrently) or MATH 1123 (may be taken concurrently)) or (MATH 2413 (may be taken concurrently) or MATH 1124 (may be taken concurrently)) or (MATH 1511 (may be taken concurrently) or MATH 1115 (may be taken concurrently)).

Co-requisite: COMP 1336.

COMP 1122 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 1336 or COMP 1213) and (COMP 1121 or COMP 1211) and (MATH 2413 (may be taken concurrently) or MATH 1124 (may be taken concurrently)).

Co-requisite: COMP 1337.

COMP 1300 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 1315 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 1336 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 1511 (may be taken concurrently)) or (MATH 1123 (may be taken concurrently) or MATH 1316 (may be taken concurrently)) or (MATH 1124 (may be taken concurrently) or MATH 2413 (may be taken concurrently)).

Co-requisite: COMP 1121.

COMP 1337 Computer Science II: 3 semester hours.

Continuation of COMP 1336 with continued emphasis on program development techniques, 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 1336 or COMP 1213) and (COMP 1121 or COMP 1211) and (MATH 2413 (may be taken concurrently) or MATH 1124 (may be taken concurrently)).

Co-requisite: COMP 1122.

COMP 2300 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 2302 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 1315 or COMP 1213 or COMP 1336.

COMP 2303 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 1422 or COMP 1224) or ((COMP 1221 or COMP 1122) and (COMP 1337 or COMP 1223)).

COMP 2310 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 propositional 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 1422 or COMP 1224) or ((COMP 1221 or COMP 1122) and (COMP 1337 or COMP 1223)).

COMP 2313 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 1422 or COMP 1224) or ((COMP 1221 or COMP 1122) and (COMP 1337 or COMP 1223)).

COMP 2314 Introduction to Java: 3 semester hours.

An introduction to the Java Programming language. Includes coverage of Java Development Kit (JKD), 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 2315 Python Programming Language: 3 semester hours.

An introduction to the fundamentals of python programming. It covers various topics, including variables and data types, functions, file input and output, and recursion. Packages for data processing and analytics such as Numpy, Scipy, Pandas, Scikit-learn, and Matplotlib will be introduced. Students will program using popular platforms like PyCharm and Jupyter notebook.

Prerequisites: COMP 1337 or COMP 1223.

COMP 2319 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 1337 or COMP 1223) and (COMP 1122 or COMP 1221).

COMP 2336 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 1422 or COMP 1224) or ((COMP 1337 or COMP 1223) and (COMP 1122 or COMP 1221)).

COMP 3301 Embedded Systems: 3 semester hours.

Examines how to design, program, and test embedded systems that interact with the physical world. Topics include microcontrollers, hardware interfacing, sensors, and real time programming.

Prerequisites: COMP 2336 or COMP 2013.

COMP 3303 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 2303 or COMP 2033.

COMP 3305 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 2336 or COMP 2013) and (COMP 2310 or COMP 2103).

COMP 3306 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 2336 or COMP 2013) and (COMP 2319 or COMP 3304 or COMP 3043).

COMP 3311 Introduction to Data Science: 3 semester hours.

This course introduces students to Big Data and Data Analysis techniques. Topics covered include data science and analytics, introduction to programming languages suitable for data analysis, data explorations, visualization technique for large datasets and basics of machine learning. The course consists of weekly lectures followed by hands-on labs.

Prerequisites: COMP 1337 or COMP 1223.

COMP 3321 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 2336 or COMP 2013.

COMP 3322 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 2336 or COMP 2013.

COMP 3331 Information Privacy: 3 semester hours.

An introduction to the fundamentals of information privacy. It covers various topics, including data anonymization, differential privacy, location privacy, web and network privacy; multiparty computation, privacy in internet of Things; privacy in social networks, and secure data outsourcing. The course also provides students with hands-on experience in information privacy.

Prerequisites: COMP 2336 or COMP 2013.

COMP 3332 Cryptography: 3 semester hours.

An introduction to the fundamentals of cryptography. It covers various topics, including classic data encryption and decryption schemes, private and public key systems, message authentication, digital signature, and hash function. The course also provides students with hands-on experience in cryptograph.

Prerequisites: COMP 2310 or COMP 2103.

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 Xcode and programming language Objective-C for iOS, and Eclipse for Android.

Prerequisites: COMP 2013 or COMP 2336.

COMP 3343 Internet of Things: 3 semester hours.

Introduction to the Internet of Things(IoT), evolution and market around Internet of things, embedded systems and distributed systems to support IoT devices, communication and data storage in IoT, IoT design considerations and constraints, current components of IoT and future trends. The goal of this course is to help students with solid technical knowledge and skills to build IoT systems from the ground up. The course will focus on creative thinking and on hands-on project development.

Prerequisites: COMP 2013 or COMP 2336.

COMP 3395 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 4100 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 4107 Computer Science Special Topic: 1 semester hour.

This special topic course covers critical topics and skills, such as tech-interview, start-up tech entrepreneurship, emerging new tech development seminar, etc.

COMP 4207 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 3322 or COMP 3223 and (COMP 3306 or COMP 3063) and (COMP 3305 or COMP 3053) and (COMP 3395 or COMP 3953).
Co-requisite: COMP 4100.

COMP 4208 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 4207 or COMP 4072.

COMP 4307 Special Topics: 1-3 semester hour.

Studying selected current and emerging topics in Computer Science. Courses may be repeated for credit when topics vary.

COMP 4311 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 4312 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 3306 or COMP 3063.

COMP 4314 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 2336 or COMP 2013) and (COMP 2310 or COMP 2103).

COMP 4315 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 or MATH 3302.

COMP 4316 Machine Learning: 3 semester hours.

Topics cover fundamental machine learning algorithms and paradigms including information-based learning, probability-based learning, instance-based learning, error-based learning, neural networks and deep learning, unsupervised learning, etc. Focus on implementation and data visualization using modern programming languages such as Python and R.

Prerequisites: (COMP 2336 or COMP 2103) or (COMP 2013 or COMP 2336).

COMP 4317 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 2310 or COMP 2103.

COMP 4318 Information Retrieval: 3 semester hours.

An introduction to information retrieval theory and web searching algorithms. The topics include indexing, vector space models, evaluation, probabilistic and language models, web search engine, text classification, link analysis, web crawling, etc., with their implementation and applications.

Prerequisites: COMP 2336 or COMP 2013 and (MATH 3302 or MATH 3023).

COMP 4323 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 4312 or COMP 4123.

COMP 4331 Computer Forensics: 3 semester hours.

An introduction to the fundamentals of computer forensics, it covers various topics, including cyber crimes, evidence extraction and control, data recovery, network forensics, mobile platform forensics, software reverse engineering, and legal issues. The course also provides students with hands-on experience in digital forensics.

Prerequisites: COMP 3306 or COMP 3063.

COMP 4332 Mobile Security: 3 semester hours.

introduction to the principles of mobile security. It covers various topics, including wireless and mobile network security, security models of mobile device platforms, mobile service security, and security of the Internet of Things. The course also provides students with hands-on experience in the security of various mobile systems.

Prerequisites: COMP 2336 or COMP 2013.

COMP 4333 Ethical Hacking and Penetration Testing: 3 semester hours.

This course teaches students the underlying principles and many of the techniques associated with the cyber-security practice known as penetration testing or ethical hacking. The course also provides students with hands-on experience on this topic.

Prerequisites: (COMP 3063 or COMP 3306) and (COMP 4123 or COMP 4312).

COMP 4384 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 3322 or COMP 3223.

COMP 5129 Research: 1 semester hour.

Topics cover literature review and summarization, scientific article writing, problem analysis and formulation, references and citation.

COMP 5300 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 5311 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 4311 or COMP 4113.

COMP 5312 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 3304 or COMP 3043.

COMP 5313 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 3306 or COMP 3063.

COMP 5314 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 or CINS 5305.

COMP 5315 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 3305 or COMP 3053.

COMP 5316 Artificial Intelligence: 3 semester hours.

An introduction to artificial intelligence. The topics include intelligent agents, problem solving through search, knowledge representation and reasoning, planning, probabilistic reasoning and models, reinforcement learning, and their applications.

Prerequisites: COMP 2336 or COMP 2013 and (MATH 3302 or MATH 3023).

COMP 5317 Computer Vision: 3 semester hours.

An introduction to the principles of computer vision. It covers various topics, including fundamentals of image formation, feature detection and matching, motion estimation and tracking, image classification, and deep learning with neural networks. The course also provides students with hands-on experience in developing computer vision algorithms.

Prerequisites: COMP 2336 or COMP 2013.

COMP 5324 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 5313 or COMP 5133.

COMP 5326 Machine Learning: 3 semester hours.

An introduction to machine learning theory and techniques including supervised and unsupervised learning, learning models, theoretical and empirical evaluation. Topics include decision tree, Bayesian learning, instance-based learning, regressions, support vector machine, neural networks, deep learning, reinforcement learning, etc.

Prerequisites: COMP 2336 or COMP 2013 and (MATH 3302 or MATH 3023).

COMP 5327 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 5328 Natural Language Processing: 3 semester hours.

An introduction to the natural language processing theory, including language models, automatic syntactic processing, semantic processing, discourse, and pragmatics. This course will cover typical applications of natural language processing, such as information extraction, sentiment analysis, question answering, and machine translation.

Prerequisites: COMP 2336 or COMP 2013 and (MATH 3302 or MATH 3023).

COMP 5329 Text Mining: 3 semester hours.

Study text mining principles for high-quality information retrieval, including text structuring, patterns deriving, interpretation of the output, and empirical evaluation of the algorithms. Topics cover data analysis, text categorization, text clustering, concept extraction, text summarization, sentiment analysis, topic models, etc., with their implementation and applications.

Prerequisites: (COMP 2336 or COMP 2013) and (MATH 3302 or MATH 3023).

COMP 5332 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 CINS 5304 or COMP 4312 or COMP 4123) and (CINS 5063 or CINS 5306 or COMP 3053 or COMP 3305).

COMP 5342 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 2336 or COMP 2013 or CINS 5063 or CINS 5306.

COMP 5389 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 5391 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 5690 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.

Department of Computer Science, Undergraduate

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 that 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 the knowledge of the liberal arts, and on the commitment to services to others.

Admission Requirements

Table 1. First-time Freshmen Requirements for Direct Admission to the Computer Science Program

Academic Major	Meet PVAMU Admission Standards	High School GPA	SAT/ACT	High School Rank	THEA Passed
Computer Science	Yes	3.00	New SAT: 950/18		

Table 2. Transfer Students Requirements for Direct Admission to the Computer Science Program

Academic Major	Meet PVAMU Admission Standards	Transfer Grades	Transfer GPA (Math; Science and Engineering)
Computer Science	Yes	"C" or greater	2.50

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 (p. 354) college requirements.

Accreditation Status

The Computer Science program is accredited by the Computing Accreditation Commission of ABET, Inc., <http://www.abet.org>.

Computer Science, BS

Bachelor of Science in Computer Science Degree Program Requirements

Complete Core Curriculum Listing at <https://catalog.pvamu.edu/universitycorecurriculum/>

Core Curriculum 42 Credit Hours

Communication Core		6
ENGL 1301	Freshman Composition I	
ENGL 2311	Technical and Business Writing	
Mathematics		3
MATH 2413	Calculus with Analytic Geometry I	
Life and Physical Sciences		6
CHEM 1303	General Inorganic Chemistry I	
PHYS 2325	University Physics I	
Language, Philosophy, and Culture (Select One)		3
Creative Arts (Select One)		3
American History		6
HIST 1301	United States History I	
HIST 1302	United States History II	
Government/Political Science		6
POSC 2305	American Government	
POSC 2306	Texas Government	
Social and Behavioral Sciences (Select One)		3
Component Area Option One (Select One)		3
Component Area Option Two		3
COMM 1311	Introduction to Speech Communication	
College Requirements		
MATH 2413	Calculus with Analytic Geometry I	1
MATH 2414	Calculus with Analytic Geometry II	4
Major Requirements		
COMP 1101	Intro to Basic Engr & Comp Sci	1
COMP 1121	Computer Science Lab I	1
COMP 1336	Computer Science I	3
COMP 1122	Computer Science Lab II	1
COMP 1337	Computer Science II	3
COMP 2310	Discrete Structures	3
COMP 2319	Computer Organization	3
COMP 2336	Data Structures	3
COMP 3305	Analysis of Algorithms	3
COMP 3306	Operating Systems	3
COMP 3322	Software Engineering	3
COMP 3395	Database Management	3
COMP 4100	Ethics and Social Issues in Computing	1
COMP 4207	Senior Design Project I	2
COMP 4208	Senior Design Project II	2
COMP 4311	Programming Languages	3
COMP 4312	Computer Networks	3

COMP 4314	Introduction to Parallel Computing	3
COMP 4323	Network Security	3
General CS Elective		3
Select one of the three concentration options below:		12
Regular Program concentration requirements:		
Two CS Lower Level Electives		
Two CS Upper Level Electives		
Cybersecurity Concentration Requirements:		
COMP 3332	Cryptography	
COMP 4331	Computer Forensics	
COMP 4333	Ethical Hacking and Penetration Testing	
One of the Following Concentration Electives:		
COMP 2313	Introduction to Information Security	
COMP 3331	Information Privacy	
COMP 4332	Mobile Security	
Data Science Concentration Requirements:		
COMP 3311	Introduction to Data Science	
COMP 4315	Data Mining and Analytics	
COMP 4316	Machine Learning	
COMP 4318	Information Retrieval	
Natural Sciences Area Requirements ¹		6
CHEM 1111	General Chemistry Lab I	
PHYS 2125	University Physics Lab I	
Four (4) additional SCH from Natural Sciences		
Math Area Requirements		
MATH 3302	Probability and Statistics	3
MATH 3307	Linear Algebra	3
Total Hours		121

¹ Students meet the 12 SCH Science requirement by taking 6 SCH from the core curriculum and the remaining 6 SCH from the Natural Sciences area. Please note that one 3 SCH course and three 1 SCH lab courses will meet the requirements in the Natural Sciences area.

Computer Science Suggested Electives

Lower-Level Electives

COMP 2300	Introduction to Web Design and Multimedia	3
COMP 2302	Applications Development using C#	3
COMP 2313	Introduction to Information Security	3
COMP 2314	Introduction to Java	3
COMP 2315	Python Programming Language	3

Upper-Level Electives

COMP 3301	Embedded Systems	3
COMP 3311	Introduction to Data Science	3
COMP 3321	Graphics and Visual Computing	3
COMP 3331	Information Privacy	3
COMP 3332	Cryptography	3
COMP 3333	Smart Device App Development	3
COMP 3343	Internet of Things	3
COMP 4307	Special Topics	1-3
COMP 4315	Data Mining and Analytics	3
COMP 4316	Machine Learning	3
COMP 4318	Information Retrieval	3
COMP 4331	Computer Forensics	3

COMP 4332	Mobile Security	3
COMP 4333	Ethical Hacking and Penetration Testing	3
COMP 4384	Human-Computer Interaction	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 Special Program (p. 356)s), apply up to six 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 been 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 earn 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.

Bachelor of Science in Computer Science Degree Sequence

Core: <https://catalog.pvamu.edu/universitycorecurriculum/> (<https://catalog.pvamu.edu/universitycorecurriculum/>)

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Mathematics Core		3 Communication Core	3
MATH 2413		ENGL 1301	
Component Area Option Two Core		3 MATH 2414	4
COMM 1311		Component Area Option One Core	3
Life and Physical Sciences Core		3 COMP 1337	3
PHYS 2325		COMP 1122	1
PHYS 2125	1		
COMP 1101	1		
COMP 1336	3		
COMP 1121	1		
Total	15 Total		14

Total Hours: 29

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours
COMP 2336		3 American History Core	3
Lower Level CS Elective		3 HIST 1301	
COMP 2310		3 COMP 2319	3
Communication Core		3 Lower Level CS Elective	3
ENGL 2311		Social and Behavioral Science Core	3
Life and Physical Sciences Core		3 Science Sequence Course	3
CHEM 1303		Science Sequence Lab	1
CHEM 1111	1		
Total	16 Total		16

Total Hours: 32

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Government/Political Science Core		3 American History Core	3
POSC 2305		HIST 1302	
COMP 3306		3 COMP 3305	3
COMP 3395		3 COMP 3322	3
MATH 3302		3 General CS Elective	3

MATH 3307	3 Creative Arts Core	3
Total	15 Total	15

Total Hours: 30

Senior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
COMP 4100		1 COMP 4208	2
COMP 4207		2 COMP 4311	3
COMP 4312		3 COMP 4323	3
Upper Level CS Elective		3 Upper Level CS Elective	3
COMP 4314		3 Language, Philosophy, and Culture Core	3
Government/Political Science Core		3	
POSC 2306			
Total	15 Total		14

Total Hours: 29

Name	Unit
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Total Semester Credit Hours: 121

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

BS Computer Science

Degree Skills

1. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions
2. Design, implement and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline
3. Apply computer science theory and software development fundamentals to produce computing-based solutions

Concentration Skills

1. Apply security principles and practices to maintain operations in the presence of risks and threats
2. Understand the application of the crosscutting concepts of confidentiality, integrity, availability, risk, adversarial thinking, and systems thinking

Department of Computer Science, Graduate

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 doctoral studies in Computer Science or Computer Information Systems.

The primary 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 the industry to upgrade their professional skills; and
3. Prepare graduates to pursue a terminal degree in Computer Science and Computer Information Systems.

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:

MS in Computer Science Program:

COMP 2310	Discrete Structures	3
COMP 2319	Computer Organization	3
COMP 2336	Data Structures	3

COMP 3305	Analysis of Algorithms	3
MATH 2414	Calculus with Analytic Geometry II	4

MS in Computer Information Systems Program:

COMP 1122	Computer Science Lab II	1
COMP 1337	Computer Science II	3
ECON 2302	Principles of Microeconomics	3
MATH 2413	Calculus with Analytic Geometry I	4
MATH 3302	Probability and Statistics	3
One Business Elective		3

The Two-C Rule

A maximum of two "C" grades in graduate courses (or six SCH) will be accepted toward the graduate degree

Computer Science, MS

Master of Science in Computer Science Degree Program Requirements

Computer Science Core Requirements

COMP 5300	Research Methods and Graduate Seminar	3
COMP 5311	Fundamentals and Concepts of Programming Languages	3
COMP 5312	Advanced Computer Architecture	3
COMP 5313	Advanced Operating Systems	3
COMP 5314	Advanced Database Management System	3
COMP 5315	Design and Analysis of Algorithms	3
COMP 5342	Software Engineering Processes	3

Concentration (Select one from below): **15**

Thesis Concentration:

COMP 5690	Masters Thesis
Three Electives (Select 9 hours from the approved Computer Science Electives)	

Non-Thesis Concentration:

COMP 5391	Masters Project
Four Electives (Select 12 hours from the approved Computer Science Electives)	

Total Hours **36**

General Computer Science Electives

COMP 5316	Artificial Intelligence	3
COMP 5317	Computer Vision	3
COMP 5324	Distributed Computing and Parallel Processing	3
COMP 5326	Machine Learning (Newly approved new course (Machine Learning))	3
COMP 5327	Data Mining	3
COMP 5328	Natural Language Processing	3
COMP 5329	Text Mining	3
COMP 5332	Computer and Network Security	3
COMP 5389	Applied Research	3

Master of Science in Computer Science Degree Sequence

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
COMP 5311		3 COMP 5300	3
COMP 5312		3 COMP 5313	3

COMP 5314	3	COMP 5315	3
Total	9	Total	9

Total Hours: 18

Second Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
COMP 5342		3 Three CS Electives (Thesis Track) or COMP 5391 and Two CS Electives (Non- Thesis Track)	9
COMP 5690	6		
or Two CS Electives (Non- Theseis Track)			
Total	9	Total	9

Total Hours: 18

Name	Unit
Total Semester Credit Hours: 36	

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

MS Computer Science

Degree Skills

1. Understand the subjects of given computing practice and identify current techniques and skills needed. Be skillful to apply the current computing tools to solve the problem through design and implementation
2. Ability to identify new techniques and skills needed for solving the problem. Are also able to earn and apply the latest computing tools to get solutions through design and implementation
3. Ability to resent methodologies and write technical reports following professional templates by citing the data sources

Computer Information Systems, MS

Master of Science in Computer Information Systems Degree Program Requirements

Computer Information Systems Core Requirements

CINS 5301	Information Resources Management	3
CINS 5304	Data Communications and Computer Networks	3
CINS 5305	Database Management Systems	3
CINS 5306	Data Structures and Algorithms	3
CINS 5307	Information Technology	3
CINS 5318	Software Engineering	3

Concentration (select one from below): 18

Thesis Concentration:

CINS 5690	Master Thesis	
Electives (Select 12 hours from the approved CINS Electives)		

Non-Thesis Concentration

CINS 5391	Masters Project	
or CINS 5338	Software Project Management	
Electives (Select 15 hours from the approved CINS Electives)		

Total Hours 36

General CINS Electives

CINS 5317	Information Retrieval	3
CINS 5319	Enterprise Information Systems	3
CINS 5330	E-Commerce	3

CINS 5331	Information Assurance	3
CINS 5398	Special Topics in Computer Information Systems	3

Master of Science in Computer Information Systems Degree Sequence

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
CINS 5301		3 CINS 5305	3
CINS 5304		3 CINS 5306	3
CINS 5318		3 CINS 5307	3
Total		9 Total	9

Total Hours: 18

Second Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
CINS 5690		6 Three CINS Electives (Thesis Track) or CINS 5391 and Two CINS Electives (Non- Thesis Track)	9
CINS Elective (Thesis Track) or Three CINS Electives (Non-Thesis Track)		3	
Total		9 Total	9

Total Hours: 18

Name	Unit
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Total Semester Credit Hours: 36

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

MS Computer Information Systems

Degree Skills

1. Utilize various computer software to process and analyze data to retrieve useful information
2. Knowledge foundation to continue learn new software/tools by themselves in the information area
3. Knowledge to successfully enter and complete related Ph.D. program

Department of Electrical and Computer Engineering

Electrical Engineering

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 engage in self-development activities through professional study and personal research that will allow them to adapt to evolving technological challenges.
3. 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 Computer Engineering and other related fields.
2. 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.
3. To produce graduates who can successfully complete graduate degrees in Computer Engineering or other disciplines that they may choose.

Graduate Certificate in Deep Learning for Artificial Intelligence

Required Courses

ELEG 6316	Statistical Learning for Big Data	3
ELEG 6318	Deep Learning	3
ELEG 6360	Modern Artificial Intelligence	3

Elective Courses (choose 3 below):

COMP 5314	Advanced Database Management System	3
COMP 5315	Design and Analysis of Algorithms	3
COMP 5327	Data Mining	3
COMP 5329	Text Mining	3
CINS 5317	Information Retrieval	3
ELEG 6311	Computer Architecture & Advanced Logic Design	3
ELEG 6312	The Internet: Design and Implementation	3
ELEG 6315	Information Networks	3
ELEG 6320	Wireless Networks	3
ELEG 6331	Stochastic Processes	3

Total Hours 18

Graduate Certificate in Smart Electric Power Grid: Sources, Devices and Systems

Required Courses

ELEG 6385	Fundamentals of Power Electronics and Motor Drives	3
ELEG 6386	Renewable Energy Sources	3
ELEG 6387	Smart Grid: Fundamentals of Design and Analysis	3

Elective Courses

Choose 9 SCH of ELEG, CHEG, CVEG, or MCEG graduate courses related to the smart electric power grid ¹		9
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Total Hours 18

¹ Courses must be chosen in consultation with faculty advisor.

Undergraduate Certificate in Broadband Communication Systems Access Technology

Required Courses

ELEG 4300	Communication Theory	3
ELEG 4313	Broadband Communication Systems I	3
ELEG 4323	Broadband Communication Systems II	3
ELEG 4333	Communication Network Engineering	3

Total Hours 12

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.

Courses

ELEG 1101 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.

Co-requisite: GNEG 1010.

ELEG 1102 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 1301 Programming for Computer Engineering I: 3 semester hours.

Fundamentals of C++ programming language. Logic of algorithms, flowcharts, program looping, conditional statements, arrays, strings, preprocessor, inputs, outputs, functions and pointers, applications and projects for Computer Engineering majors.

Prerequisites: MATH 1113 or MATH 1314 or COMP 1300 or COMP 1003.

Co-requisite: MATH 1314.

ELEG 1304 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 1314 (may be taken concurrently) or MATH 1113 (may be taken concurrently)) or (MATH 1511 (may be taken concurrently) or MATH 1115 (may be taken concurrently)) or (MATH 1316 (may be taken concurrently) or MATH 1123 (may be taken concurrently)) or (MATH 2413 (may be taken concurrently) or MATH 1124 (may be taken concurrently)) or (MATH 2414 (may be taken concurrently) or MATH 2024 (may be taken concurrently)).

ELEG 1321 Programming for Computer Engineering II: 3 semester hours.

Development of advanced programming skills through review of programming concepts, and knowledge of recursion, structures, including array of structures, algorithms, object-oriented programming concepts including classes, inheritance. Coding applications and projects for Computer Engineering majors.

Prerequisites: ELEG 1301.

ELEG 2101 Electric Circuits Laboratory: 1 semester hour.

Operation of basic laboratory-type test and measurement equipment. Experimentation in basic current-voltage relations, circuit laws and network analysis of linear DC and AC circuits. Use of oscilloscope in circuit analysis. RL, RC, RLC, resonance, Op-Amp circuits, and transient circuit experiments, Statistical analysis of elements of Electrical Circuits.

Prerequisites: ELEG 2305 (may be taken concurrently) or ELEG 2023 (may be taken concurrently).

ELEG 2131 Logic Circuits Lab: 1 semester hour.

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. Field Programmable Gate Array (FPGA) Devices and Verilog programming language.

Co-requisite: ELEG 2311.

ELEG 2305 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 2326 or PHYS 2523) and (MATH 2320 (may be taken concurrently) or MATH 2043 (may be taken concurrently)).

Co-requisite: ELEG 2101.

ELEG 2311 Logic Circuits: 3 semester hours.

Introduction to digital systems, number systems and codes. Boolean algebra and logic gates; gate-level minimization; combinational logic; synchronous sequential logic; parallelism with Field Programmable Gate Array (FPGA) and Hardware Description Languages (DHL), such as Verilog, VHDL, or system Verilog.

Co-requisites: ELEG 2131, ELEG 2305.

ELEG 2315 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 2320 (may be taken concurrently) or MATH 2043 (may be taken concurrently)) and (PHYS 2326 or PHYS 2523).

ELEG 2321 Data Structure and Algorithm with Python: 3 semester hours.

Python data structure and advanced algorithm design and development. Fundamentals of Python programming, introduction on Linux system, list and sorting, sets and maps, tree, graph and heaps, engineering applications and team projects.

Prerequisites: ELEG 1301 or ELEG 1043 or ELEG 1304 and (MATH 1124 or MATH 2413).

ELEG 2331 Advanced Programming and Applications: 3 semester hours.

Advanced software development with a focus on problem solving skills. Design, implementation, and testing of several large programs in a Linux environment using current technologies. Logic of algorithms, program looping, selection statements, functions, file inputs and outputs, functions and object-oriented programming, engineering applications and projects.

Prerequisites: ELEG 1301.

ELEG 3104 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 or ELEG 3303 and (ELEG 2011 or ELEG 2101).

ELEG 3107 Microprocessor Systems Design Laboratory: 1 semester hour.

Use of development tools in the design and implementation of microprocessor / microcontroller based systems. Assembly language programming, parallel I/O communication interfacing, interrupts, and timers.

Prerequisites: ((ELEG 2311 or ELEG 3063) and (ELEG 1304 or ELEG 1043)) or ((COMP 1336 or COMP 1213) and (ELEG 3307 (may be taken concurrently) or ELEG 3073 (may be taken concurrently))).

ELEG 3301 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 2305 or ELEG 2023.

ELEG 3302 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 3301 or ELEG 3013.

ELEG 3303 Physical Principles of Solid State Devices: 3 semester hours.

Crystal structure, introduction to quantum concepts and discrete energy levels; atomic bonding, solid-state band theory, Fermi-Dirac statistics, charge carrier transport, and introduction to semiconductor device physics and operation.

Prerequisites: ((CHEM 1403 or CHEM 1034) or (CHEM 1043 or CHEM 1304)) and (MATH 2320 or MATH 2043) and (PHYS 2326 or PHYS 2523).

ELEG 3304 Electronics I: 3 semester hours.

Operational amplifiers. Diodes and nonlinear circuits. Field effect transistors. Analysis and design of linear amplifiers. Biasing, small and large signal behavior. Operation of bipolar junction transistors.

Prerequisites: (ELEG 3303 (may be taken concurrently) or ELEG 3033 (may be taken concurrently)) and (ELEG 3301 or ELEG 3013).

ELEG 3307 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 2311 or ELEG 3063) and ((ELEG 1304 or ELEG 1043) or (COMP 1213 or COMP 1336)).

Co-requisite: ELEG 3107.

ELEG 3615 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 4100 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 4300 (may be taken concurrently) or ELEG 4003.

ELEG 4101 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 2101 or ELEG 2011) and (ELEG 3304 (may be taken concurrently) or ELEG 3043 (may be taken concurrently)).

ELEG 4102 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 4301 (may be taken concurrently) or ELEG 4013 (may be taken concurrently).

ELEG 4131 Advanced Logic Design Laboratory: 1 semester hour.

Design and laboratory implementation of digital systems using standard, integrated circuits.

Prerequisites: ELEG 4335 (may be taken concurrently) or ELEG 4355 (may be taken concurrently).

ELEG 4132 Computer Networking Lab: 1 semester hour.

The courses will introduce various types of network devices, configurations, network scenarios, cables, Cisco Packet tracer and CLI commands.
Prerequisites: ELEG 3307 (may be taken concurrently) or ELEG 3073.

ELEG 4247 Senior Design and Professionalism I: 2 semester hours.

This is the first course of a two-semester capstone experience (ELEG 4248 must immediately follow ELEG 4247 or sequence must restart with 4247) 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 2308 or CHEG 2003 and (ELEG 3307 or ELEG 3073) and (ELEG 3304 or ELEG 3043).

ELEG 4248 Senior Design and Professionalism II: 2 semester hours.

A continuation of ELEG 4247 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 4247 or ELEG 4247.

ELEG 4300 Communication Theory: 3 semester hours.

Signals and spectra. Transmission and processing of signals. continuous-wave modulation and pulse modulation. Baseband pulse transmission and pass-band digital transmission. Signal space analysis. Information measures.
Prerequisites: (ELEG 3302 or ELEG 3023) and (MATH 3302 or MATH 3023).

ELEG 4301 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 3301 or ELEG 3013) and (MATH 4317 or MATH 4173).

ELEG 4302 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 or ELEG 4301.

ELEG 4304 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 3304 or ELEG 3043.

ELEG 4305 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 2305 or ELEG 2023) and (MATH 4317 or MATH 4173).

ELEG 4307 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 or ELEG 3302 and (MATH 4173 or MATH 4317).

ELEG 4310 Special Topics: 3 semester hours.

Selected current and emerging topics in Electrical Engineering. Courses may be repeated for credit when topics vary.

ELEG 4313 Broadband Communication Systems I: 3 semester hours.

Introduction of various areas of high-speed communication systems. The basic ideas of DSL technology. Telephone subscriber loop environment. Twisted-Pair channel modeling. Transceiver front-end noise models. Channel capacity testing and analysis techniques of xDSL systems. Students will be expected to research and present various topics of interests in class. Projects are expected from the students at the end of the semester. Other special topics of interest will be covered especially as they relate to xDSL issues.
Prerequisites: ELEG 3023 or ELEG 3302.

ELEG 4322 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 or ELEG 3303.

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 4324 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 or ELEG 3304 and (ELEG 4013 or ELEG 4301).

ELEG 4325 Computer Interfacing and Communications: 3 semester hours.

Introduce software design and hardware interfacing of embedded systems, microcontroller based parallel and serial communications, I/O programming, low power computing, data acquisition and communication, emphasis on student projects.

Prerequisites: (ELEG 3107 or ELEG 3071) and (ELEG 3307 or ELEG 3073).

ELEG 4326 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 or ELEG 3304 (may be taken concurrently) and (ELEG 3063 or ELEG 2311 (may be taken concurrently)) and (ELEG 4043 or ELEG 4304 (may be taken concurrently)).

ELEG 4330 Introduction to Digital Design: 3 semester hours.

The use of hardware description language and automated synthesis in design. hierarchical and modular design of digital systems. Control logic, synchronous and asynchronous sequential circuit design. Programmable logic devices and field programmable gate arrays. Circuit simulation for design verification and analysis. Timing-oriented design.

Prerequisites: (ELEG 2311 or ELEG 3063) and (ELEG 3307 or ELEG 3073).

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 or ELEG 4330.

ELEG 4335 Advanced Logic Design: 3 semester hours.

Introduction to the design, modeling and verification of complex digital system, modem design, methodologies for logic design, development of tools for the design and testing of digital systems.

Prerequisites: ELEG 3073 or ELEG 3307.

Co-requisite: ELEG 4131.

ELEG 4336 Introduction to High Performance Computing: 3 semester hours.

The course will introduce high performance computing hardware architecture, software tools, and applications.

Prerequisites: ELEG 3307 or ELEG 3073.

ELEG 4339 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, VLSI design project.

Prerequisites: ELEG 3063 or ELEG 2311.

ELEG 4361 Design of Digital System Applications Using Field Programmable Gate Array Devices: 3 semester hours.

Three credit hours; This course provides instruction and application into the use of Hardware Descriptive Language in program development using gate level modelling, data flow modelling, behavioral modelling, top down and bottom up design using combinational logic and state machine design; software simulation and design implementation and testing using FPGAs.

Prerequisites: ELEG 3063 or ELEG 2311.

ELEG 4371 Foundation and Application of Internet of Things: 3 semester hours.

The course will give a systematic introduction to IoT technology, and the popular hardware platform such as Raspberry Pi together with some sensor kits will be adopted. It will cover the basic concepts and fundamental principles of IoT, including (i) IoT devices/things and its design, (ii) Embedded sensing and processing, (iii) Low power IoT networking and communication, and (iv) Computing and Data Analytics. A project-based teaching and learning approach will be adopted.

Prerequisites: ELEG 2331.

ELEG 4372 Computer and Network Security: 3 semester hours.

This course introduces students to the basic network Cybersecurity Principles Overview of Computer Security; Computer Networks and Internet Overview; IT System Components Network Technology and Protocols; Network Defense; Network TCP/IP Stack and Attacks; Attacks on Industrial Control Systems; Firewall, and Intrusion Detection and Prevention System; Key Distribution and User Authentication Transport-Level Security; IP Security; Short Introduction to cryptography

Prerequisites: ELEG 3023 or ELEG 3302.

ELEG 4373 Cyber Physical Systems: 3 semester hours.

Students gain an understanding across the breadth of cybersecurity including system monitoring, networking basics and penetration testing. An applied approach to statistics is also included to prepare students to assess the data collected for their research projects. The course is conducted with a hands-on approach applying virtual environments to practice the concepts learned in the technical lectures each week.

Prerequisites: ELEG 3023 or ELEG 3302.

ELEG 4374 Introduction to Cryptography: 3 semester hours.

This course provides an introduction to modern cryptography and communication security. It focuses on how cryptographic algorithms and protocols work and how to use them. The course covers the concepts of block ciphers and message authentication codes, public key encryption, digital signatures, and key establishment, as well as common examples and uses of such schemes, including the AES, RSA-OAEP, and the Digital Signature Algorithm. Basic cryptanalytic techniques and examples of practical security solutions are explored to understand how to design and evaluate modern security solutions.

Prerequisites: ELEG 3023 or ELEG 3302.

ELEG 4377 Machine Learning for Engineering Applications: 3 semester hours.

Machine Learning for Engineering Applications. Credit 3 semester hours. Fundamentals of machine learning model and its design and implementation. Data preprocessing, feature engineering, various classifiers and regression, clustering, engineering applications and team projects.

Prerequisites: ELEG 2331.

ELEG 4378 Mobile Edge Computing: 3 semester hours.

The course will provide a systematic introduction to mobile edge computing. It will cover the architecture of mobile edge computing with its entities and protocols, from the edge devices via middle layers up to the cloud. It will also cover the computing and communication technologies used in mobile edge computing, as well as their performance, power efficiency, storage, and communication bandwidth constraints. The edge data analytics and the security and privacy issues of mobile edge computing will also be discussed.

Prerequisites: ELEG 2331.

ELEG 4399 Independent Study: 1-3 semester hour.

Readings, research, and/or field work on selected topics.

ELEG 4615 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 5391 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 5396 Electrical Engineering Research: 3 semester hours.

Methods and practice of Electrical Engineering research performed under the supervision of graduate advisor.

ELEG 5696 Research: 6 semester hours.

Engineering research under the supervision of graduate advisor.

ELEG 5699 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 6101 Graduate Seminar I: 1 semester hour.

Seminar on emerging areas of electrical engineering. Research presentations by faculty, students and invited guests.

ELEG 6102 Graduate Seminar II: 1 semester hour.

Continuation of ELEG 6011.

ELEG 6310 Advanced Computer Systems Design: 3 semester hours.

Digital Design Methodologies, System Design CAD tools, Hardware Description Language, Simulation, Verification and Synthesis.

Prerequisites: ELEG 4303 or ELEG 4330.

ELEG 6311 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 4330 or ELEG 4303.

ELEG 6312 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.

ELEG 6314 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 4339.

ELEG 6315 Information Networks: 3 semester hours.

OSI Reference model overview, concept of peer-to-peer operation, and layer functions. Circuit switched networks, packet switched networks, ATM and FR networks. Access networks: LANs, DSL, T1/E1, and wireless. Enterprise and core networks: Protocol architectures such as TCP, UDP, IP, ATM, VPN, and MPLS. Interconnecting the networks for end-to-end operation for connectionless and connection oriented protocols. Modeling and performance analysis of network protocols. Signaling and network management overview.

ELEG 6316 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 6318 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 probabilistic 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 6320 Wireless Networks: 3 semester hours.

Overview of mobile and cellular networks, I, II, III and IV generation systems. Mobile computing systems, and architecture and design of digital cellular wireless networks. Design of IEEE 802 Wireless LANs and standards. Performance considerations for user and node mobility management. Power and propagation, dynamic routing and re-configurable networks. Mobile transport protocols including IP, ATM, and TCP. Middleware considerations. Mobile applications, management and service provisioning.

ELEG 6321 Digital Communication: 3 semester hours.

Overview of Digital Communications fundamentals of AM, FM and PM. Concept of Nyquist criteria, SNR, Wave shaping, Shannon's theory. Digital waveform coding methods. Channel impairments: random noise, cross talk, inter-modulation, information recovery process. Design of modems and SNR improvements by noise shaping and canceling techniques. Integrated Services Digital Networks: Channelization, clock recovery, framing and recovery of information, end-to-end connectivity methods, signaling and management operations.

ELEG 6322 Coding Theory: 3 semester hours.

Linear codes: parity and generator matrices, syndrome error correction and detection capability, minimum distance. Performance bounds of linear codes, Hamming and Golay codes, Galois fields, shift-register implementation. Cyclic codes. BCH codes: the BCH decoding algorithm, burst-correction codes.

Prerequisites: ELEG 4300 and ELEG 6331.

ELEG 6324 Advanced Broadband Communications Systems: 3 semester hours.

Overview: Definition of Broadband, broadband architectures: DSL, DSLAM and variations, Digital wireless, and introduction to packet and circuit switching technologies. Standards of DSL. Design of HDSL, ADSL, XDSL systems and methods to improve bandwidth enhancements on TTP. Design of high-speed operation: Impact on existing TIP (Cat3, 5), digital wireless, CATV and satellite network architectures. Modeling and Performance analysis of different broadband systems for data and multi-service environment. Transmission impairments and information recovery process: noise shaping, signal shaping, and Impact of cross-talk, inter-modulation in the physical medium.

Prerequisites: ELEG 4313.

ELEG 6325 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 6331.

ELEG 6326 Cybersecurity Fundamentals and Principles: 3 semester hours.

Fundamental concepts and challenges that define cybersecurity such as identity and access management, risk management, software development security, network security, operation security, etc.

Prerequisites: ELEG 4300 (may be taken concurrently) or ELEG 4003 or ELEG 4325 (may be taken concurrently) or ELEG 4253.

ELEG 6327 Penetration Testing and Ethical Hacking: 3 semester hours.

The course explores the steps involved in penetrations testing such as reconnaissance, footprinting and social engineering, vulnerability scanning and enumeration, operating system weakness, and the methods used to hack web servers and wireless networks.

Prerequisites: ELEG 4300 (may be taken concurrently) or ELEG 4003 or ELEG 4325 (may be taken concurrently) or ELEG 4253.

ELEG 6328 Cloud Application Security: 3 semester hours.

This course provides a comprehensive understanding of the principles, best practices, and tools needed to safeguard cloud applications and the sensitive data they handle.

Prerequisites: ELEG 4300 (may be taken concurrently) or ELEG 4003 or ELEG 4325 (may be taken concurrently) or ELEG 4253.

ELEG 6329 Hardware Security: 3 semester hours.

Hardware security topics to be covered include; security primitives, security methods, emerging technologies and security trends, vulnerability in the electronic component supply chain and in the design and fabrication processes.

Prerequisites: ELEG 2311 or ELEG 3063.

ELEG 6330 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 6331 Stochastic Processes: 3 semester hours.

Probability overview, distribution and density functions, moments, time averaging and sampled averaging. Stochastic processes: Gaussian, Markov process, Poisson, Rice, Wiener-Levy processes, bi-model and tri-model processes. Modeling of systems using stochastic processes and system analysis. Karhunen-Loeve transform, bounds and their use in systems. Decision Rules: Maximum likelihood, Minimum Error, Kalman and Wiener filters, Linear and non-linear estimation and Optimization techniques.

Prerequisites: MATH 3302 or MATH 3023.

ELEG 6333 Wavelets and Their Applications: 3 semester hours.

Time-frequency analysis. Continuous, discrete, and discrete-time wavelet transform. Multi-rate filter banks. Multi-band wavelets, two-dimensional wavelets. Wavelet packets and matching pursuit. Wavelets in noise filtering, compression, modeling of fractals, communications, detection, adaptive systems, neural networks, and fast computation.

Prerequisites: ELEG 4003 or ELEG 4300.

ELEG 6341 Advanced Field Programmable Gate Array Design and Applications: 3 semester hours.

This course introduces Field Programmable Gate Array (FPGA) based synthesis and design with a focus on signal processing implementations. It covers FPGA designs of digital filters, Fourier transform, JPEG decoding, adaptive signal processing. In addition, circuit design techniques commonly used in signal processing will also be introduced.

Prerequisites: ELEG 4300 or ELEG 4003.

ELEG 6342 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.

ELEG 6350 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.

ELEG 6351 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.

ELEG 6352 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.

ELEG 6354 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.

ELEG 6360 Modern Artificial Intelligence: 3 semester hours.

This course focuses on fundamental principles and techniques of modern Artificial Intelligence (AI). It will cover the underlying theory, and the range of applications to which AI has been applied. Specifically, search and game playing, graphical models, Markov Decision Processes, and reinforcement learning. The course will also train students to use open-source AI software to gain hands-on experiences.

ELEG 6361 Advanced Artificial Intelligence: 3 semester hours.

This course will cover advanced topics and applications in AI such as sentiment analysis, machine translation, knowledge graph, and face recognition. Furthermore, this course will introduce complicated AI systems such as Question Answer System and Object Tracking System. The course will also train students to use open-source AI software to gain hands-on experiences.

Prerequisites: ELEG 6603 or ELEG 6360.

ELEG 6362 Generative AI and Foundations Models: 3 semester hours.

This course will introduce, discuss, and analyze the core concepts and methodologies of generative AI and foundation models. Specifically, the course will provide thorough understanding of the fundamental concepts, techniques, and algorithms used to create generative AI systems such as transformers and attention mechanisms in deep learning. Students will learn generative AI tools and platforms as well as training and optimizing foundation models through hands-on experiences.

ELEG 6365 Intro to High Perf Computing: 3 semester hours.

Three credit hour lecture for graduate students. The course will introduce high performance computing hardware architecture and software tools. It will provide an opportunity for students to build and execute sample parallel codes for scientific research.

ELEG 6370 Selected Topics in Deep Learning: 3 semester hours.

This course will cover advanced topics in deep learning, such as Deep Transfer Learning, Generative Adversarial Nets, Deep Reinforcement Learning, and Adversarial Machine Learning. In addition, it will cover important use cases of various deep learning models. The course will also train students programming skills with Python and open-source deep learning software such as TensorFlow to gain hands-on experiences.

Prerequisites: ELEG 6183 or ELEG 6318.

ELEG 6371 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 6372 Power System Stability: 3 semester hours.

Modeling of the transmission system, loads, generators, excites, and governors; pre-fault and post-fault 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 6373 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 6374 Power Gen Oper Control: 3 semester hours.

Engineering aspects of power system operation. Economic analysis of generation plants and scheduling to minimize total cost of operation. Scheduling of hydro resources and thermal plants with limited fuel supplies. Loss analysis, secure operation. Power System Modeling. Power System organizations.

ELEG 6375 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 6376 Power Electronics Power System: 3 semester hours.

Impact of power electronics loads on power quality. Passive and active filters. Active input current wave shaping. HVDC transmission. Static VAR control, energy storage systems. Interconnecting photovoltaic and wind generators. Static phase shifters and circuit breakers for flexible AC transmission.

ELEG 6377 Advanced Electric Drives: 3 semester hours.

D-q axis analysis of salient-pole synchronous motor drives. Vector-controlled induction motor drives, sensor-less drives, voltage space-vector modulation techniques, current-source inverter drives, reluctance drives. Power quality issues. Integrated software lab.

ELEG 6378 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 6380 Introduction to Bioinformatics: 3 semester hours.

This course introduces Bioinformatics and provides a wide range of both fundamental and practical topics, focusing on application of computational and engineering skills in biology and medicine, including: brief introduction to biology and genomics, engineering statistics, data science, and bioinformatics. The course will require students to participate in a research project related to bioinformatics.

ELEG 6381 Advanced Bioinformatics: 3 semester hours.

This course teaches advanced topics in Bioinformatics including analysis of large scale genomic data and associated annotation data. In addition, strong emphasis is given to the interpretation and presentation of analytic outcomes. Research project analyzing large scale genomic data is required to complete the course.

Prerequisites: ELEG 6380.

ELEG 6382 Computational Systems Biology: 3 semester hours.

Computational Systems Biology is an emerging field of research which requires multidisciplinary training in engineering and biology. This course introduces the students into the realm of physics conceptualization of biological system and teach them how to develop and use mathematical models and computer simulation to understand the network design rules.

Prerequisites: ELEG 6380.

ELEG 6383 Computational Modeling of Biological Systems: 3 semester hours.

This course introduces the emerging field of systems biology and promotes application of Electrical and Computer Engineering methodology in biomedical fields. It covers many aspects of biomathematical modeling, including: the choice of a modeling framework; the design of interaction diagrams; the identification of variables and processes; standard methods of parameter estimation; the analysis of steady states, stability, and sensitivity; and the simulation of representative biomedical scenarios.

Prerequisites: ELEG 6380.

ELEG 6385 Fundamentals of Power Electronics and Motor Drives: 3 semester hours.

Power Electronics and Motor Drive: Control of electrical energy using solid state devices, diodes, thyristors, and triacs; Chopper Circuits, mathematical analysis of circuits containing these devices; power converters and control; solid-state drives for motor control.

ELEG 6386 Renewable Energy Sources: 3 semester hours.

Solar thermal energy and photovoltaics; bioenergy, hydroelectricity, tidal power, wind, wave and geothermal energies; integration of renewable energy systems.

ELEG 6387 Smart Grid: Fundamentals of Design and Analysis: 3 semester hours.

Evolution of the electric power grid; basics of electric power systems; transmission networks; solar and wind power generation; integration of variable energy resources; impact of distributed generation and electric vehicles, macro and micro grids; and data communications standards for the grid.

ELEG 6391 Special Topics in Elec Engr: 3 semester hours.

Special topics in electrical engineering relating electrical energy, digital systems, communications, sign processing, and nanoelectronics are selected and discussed in detail. May be repeated for credit if topics vary.

ELEG 7310 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 7601 Doctoral Research I: 6 semester hours.

Research for thesis or dissertation. Limited to doctoral students. May be repeated for credit.

ELEG 7602 Doctoral Research II: 6 semester hours.

Continuation of ELEG 7601. Limited to doctoral students. May be repeated for credit.

ELEG 7691 Doctoral Dissertation I: 6 semester hours.

The continuation of ELEG 7601 and ELEG 7602 for writing thesis. Limited to students who have been admitted to candidacy for doctoral degree. A written dissertation proposal is required to be presented, defended orally, and approved by the faculty advisory committee.

ELEG 7692 Doctoral Dissertation II: 6 semester hours.

The continuation of ELEG 7691. Limited to students who have been admitted to candidacy for doctoral degree. A written dissertation is required to be presented, defended orally, and approved by the faculty advisory committee.

Department of Electrical and Computer Engineering, Undergraduate

Admission Requirements

Table 1. First-time Freshmen Requirements for Direct Admission to the Computer and Electrical Engineering Programs

Academic Major	Meet PVAMU Admission Standards	High School GPA	SAT/ACT	High School Rank	THEA Passed
Computer and Electrical Engineering	Yes	3.00	New SAT: 950/18	Top 25%	(TSI) All Sections

Table 2. Transfer Students Requirements for Direct Admission to the Computer and Electrical Engineering Programs

Academic Major	Meet PVAMU Admission Standards	Transfer Grades	Transfer GPA (Math; Science and Engineering)
Computer and Electrical Engineering	Yes	"C" or greater	2.50

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://www.abet.org>. (<https://www.abet.org/>)

Electrical Engineering, BSEE

Bachelor of Science in Electrical Engineering Degree Program Requirements

Complete Core Curriculum Listing at <https://catalog.pvamu.edu/universitycorecurriculum/>

Core Curriculum 42 Credit Hours

Communication (Select Two)		6
Mathematics		3
MATH 2413	Calculus with Analytic Geometry I	
Life and Physical Sciences		6
PHYS 2325	University Physics I	
PHYS 2326	University Physics II	
Language, Philosophy, and Culture (Select One)		3
Creative Arts (Select One)		3
American History (Select Two)		6
Government/Political Science		6
POSC 2305	American Government	
POSC 2306	Texas Government	
Social and Behavioral Sciences		3
CHEG 2308	Eco Anal Technical Application	
Component Area Option One		3
CVEG 2304	Global Development Issues	
Component Area Option Two (Select One)		3

College and Support Area Requirements

MATH 2320	Differential Equations	3
MATH 2413	Calculus with Analytic Geometry I	1
MATH 2414	Calculus with Analytic Geometry II	4
MATH 3302	Probability and Statistics	3
MATH 4317	Advanced Math for Engineers	3
CHEM 1112	General Chemistry Lab II	1
CHEM 1403	Chemistry for Engineers	4
OR		
CHEM 1303 & CHEM 1304	General Inorganic Chemistry I and General Inorganic Chemistry II	
PHYS 2125	University Physics Lab I	1
PHYS 2126	University Physics Lab II	1
ELEG 1101	Intro Engr Computer Sci & Tech	1
ELEG 1102	Introduction to Electrical and Computer Engineering Laboratory	1
ELEG 2305	Network Theory I	3
MCEG 2301	Thermodynamics I	3
Select one of the following:		4
ELEG 4247 & ELEG 4248	Senior Design and Professionalism I and Senior Design and Professionalism II	
CHEG 4247 & CHEG 4248	Senior Design and Professionalism -I and Senior Design and Professionalism - II	
CVEG 4200 & CVEG 4201	Senior Design and Professionalism - I and Senior Design and Professionalism - II	
MCEG 4247 & MCEG 4248	Senior Design and Professionalism-1 and Senior Design and Professionalism II	

Major Requirements

ELEG 1304	Computer Applications in Engineering	3
ELEG 2101	Electric Circuits Laboratory	1
ELEG 2131	Logic Circuits Lab	1
ELEG 2311	Logic Circuits	3
ELEG 3301	Network Theory II	3
ELEG 3302	Signals and Systems	3
ELEG 3303	Physical Principles of Solid State Devices	3
ELEG 3304	Electronics I	3
ELEG 3107	Microprocessor Systems Design Laboratory	1
ELEG 3307	Microprocessor System Design	3
ELEG 4300	Communication Theory	3
ELEG 4101	Electronics Laboratory	1
ELEG 4301	Electromechanical Energy Conversion	3
ELEG 4305	Electromagnetic Field Theory I	3
ELEG 4304	Electronics II	3
ELEG 4307	Servomechanism and Control Systems	3

Technical Electives**9****Electrical and Computer Engineering Laboratory Elective****2****Total Hours****126**

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 for technical electives.

Microelectronics Area

ELEG 4322	Electronic and Photonic Materials and Devices	3
ELEG 4336	Introduction to High Performance Computing	3
ELEG 4339	Computer Organization and Design	3

Communications/Signal Processing Area**Computer Engineering Area**

ELEG 4339	Computer Organization and Design	3
ELEG 4325	Computer Interfacing and Communications	3
ELEG 4336	Introduction to High Performance Computing	3
ELEG 4335	Advanced Logic Design	3

Power and Control Systems Area

ELEG 4324	Power Electronics	3
ELEG 4302	Power Systems Engineering	3

Electrical and Computer Engineering Laboratory Electives

ELEG 3104	Microelectronic Processing and Characterization Lab	1
ELEG 4102	Power Laboratory	1
ELEG 4131	Advanced Logic Design Laboratory	1

Other Technical Electives

CVEG 4304	Systems Engineering	3
MCEG 3302	Thermodynamics II	3
MCEG 3306	Fluid Mechanics	3
MATH 4306	Numerical Analysis	3
MATH 3307	Linear Algebra	3
ELEG 4310	Special Topics ¹	3

¹ Special topics courses vary in content and may cover areas such as artificial intelligence, machine learning, cybersecurity, and power systems.

Technical Electives through Five-Year BS/MS Degree Plan Option

Students may, upon approval to the Five-Year BS/MS Degree Plan (<https://www.pvamu.edu/engineering/departments/five-year-bsms-programs/>) Option, 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. The following course must be completed or currently enrolled in prior to enrolling in upper division courses:

CHEG 2308	Engineering Economics	3
CHEM 1112	General Chemistry Lab II	1
CHEM 1403	Chemistry for Engineers	4
COMM 1311	Introduction to Speech Communication	3
ELEG 1101	Intro Engr Computer Sci & Tech	1
ELEG 1102	Introduction to Electrical and Computer Engineering Laboratory	1
ELEG 1304	Computer Applications in Engineering	3
ELEG 2101	Electric Circuits Laboratory	1
ELEG 2305	Network Theory I	3
ENGL 1301	Freshman Composition I	3
ENGL 2311	Technical and Business Writing	3
MATH 2413	Calculus with Analytic Geometry I	4
MATH 2414	Calculus with Analytic Geometry II	4
MATH 2320	Differential Equations	3
MCEG 2301	Thermodynamics I	3
PHYS 2125	University Physics Lab I	1
PHYS 2126	University Physics Lab II	1
PHYS 2325	University Physics I	3
PHYS 2326	University Physics II	3
Total Hours		48

Bachelor of Science in Electrical Engineering Degree Sequence

Core: <https://catalog.pvamu.edu/universitycorecurriculum/>

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Communication Core		3 Communication Core	3
Mathematics Core		4 MATH 2414	4
MATH 2413		CHEM 1403	4
ELEG 1101		1 CHEM 1112	1
ELEG 1102		1 Life and Physical Sciences Core	3
ELEG 1304		3 PHYS 2325	
Component Area Option Two Core		3 PHYS 2125	1
Total		15 Total	16

Total Hours: 31

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours
MATH 2320		3 ELEG 2305	3
Life and Physical Sciences Core		3 ELEG 2101	1
PHYS 2326		ELEG 2311	3
PHYS 2126		1 ELEG 2131	1
Government/Political Science Core		3 Social and Behavioral Science Core	3
POSC 2305		CHEG 2308	

American History Core	3 Government/Political Science Core	3
MCEG 2301	3 POSC 2306	
	Language, Philosophy, and Culture Core	3
Total	16 Total	17

Total Hours: 33**Junior**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
MATH 4317		3 ELEG 3302	3
MATH 3302		3 ELEG 3307	3
ELEG 3301		3 ELEG 3107	1
ELEG 3303		3 ELEG 3304	3
American History Core		3 ELEG 4101	1
		CVEG 2304	3
Total		15 Total	14

Total Hours: 29**Senior**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
ELEG 4304		3 ELEG 4307	3
ELEG 4300		3 Electrical and Computer Engineering Laboratory Elective	1
ELEG 4301		3 ELEG 4248	2
ELEG 4305		3 Technical Elective	3
ELEG 4247		2 Technical Elective	3
Technical Elective		3 Creative Arts Core	3
		Electrical and Computer Engineering Laboratory Elective	1
Total		17 Total	16

Total Hours: 33

Name	Unit
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Total Semester Credit Hours: 126

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

BSEE Electrical Engineering***Degree Skills***

1. Ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. Ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
3. Ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts

Concentration Skills

1. Microelectronics
2. Communications/Signal processing and power systems
3. Computer engineering

Co-curricular and Extracurricular Skills

1. Project management
2. Communications
3. Teamwork

Computer Engineering, BS

Bachelor of Science in Computer Engineering Degree Program Requirements

Complete Core Curriculum Listing at <https://catalog.pvamu.edu/universitycorecurriculum/>

Core Curriculum 42 Credit Hours

Communication (Select Two)		6
Mathematics		3
MATH 2413	Calculus with Analytic Geometry I	
Life and Physical Sciences		6
PHYS 2325	University Physics I	
PHYS 2326	University Physics II	
Language, Philosophy, and Culture (Select One)		3
Creative Arts (Select One)		3
American History (Select Two)		6
Government/Political Science		6
POSC 2305	American Government	
POSC 2306	Texas Government	
Social and Behavioral Science		3
CHEG 2308	Eco Anal Technical Application	
Component Area Option One		3
CVEG 2304	Global Development Issues	
Component Area Option Two (Select One)		3

College and Support Area Requirements

MATH 2305	Discrete Mathematics	3
MATH 2320	Differential Equations	3
MATH 2413	Calculus with Analytic Geometry I	1
MATH 2414	Calculus with Analytic Geometry II	4
MATH 3302	Probability and Statistics	3
CHEM 1112	General Chemistry Lab II	1
CHEM 1403	Chemistry for Engineers	4
OR		
CHEM 1303 & CHEM 1304	General Inorganic Chemistry I and General Inorganic Chemistry II	
PHYS 2125	University Physics Lab I	1
PHYS 2126	University Physics Lab II	1
ELEG 1101	Intro Engr Computer Sci & Tech	1
ELEG 1102	Introduction to Electrical and Computer Engineering Laboratory	1
ELEG 2305	Network Theory I	3

Select one of the following:

ELEG 4247 & ELEG 4248	Senior Design and Professionalism I and Senior Design and Professionalism II	4
CHEG 4247 & CHEG 4248	Senior Design and Professionalism -I and Senior Design and Professionalism - II	
CVEG 4200 & CVEG 4201	Senior Design and Professionalism - I and Senior Design and Professionalism - II	
MCEG 4247 & MCEG 4248	Senior Design and Professionalism-1 and Senior Design and Professionalism II	

Major Requirements

ELEG 1301	Programming for Computer Engineering I	3
ELEG 1321	Programming for Computer Engineering II	3
ELEG 2101	Electric Circuits Laboratory	1
ELEG 2321	Data Structure and Algorithm with Python	3
ELEG 2331	Advanced Programming and Applications	3
ELEG 3301	Network Theory II	3
ELEG 2131	Logic Circuits Lab	1
ELEG 2311	Logic Circuits	3
ELEG 3302	Signals and Systems	3
ELEG 3303	Physical Principles of Solid State Devices	3
ELEG 3304	Electronics I	3
ELEG 3107	Microprocessor Systems Design Laboratory	1
ELEG 3307	Microprocessor System Design	3
ELEG 4325	Computer Interfacing and Communications	3
ELEG 4330	Introduction to Digital Design	3
ELEG 4333	Communication Network Engineering	3
ELEG 4339	Computer Organization and Design	3
Technical Electives		9

Total Hours**126****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.

COMP 3306	Operating Systems	3
COMP 3322	Software Engineering	3
COMP 3395	Database Management	3
ELEG 4335	Advanced Logic Design	3
MATH 3307	Linear Algebra	3
ELEG 4310	Special Topics ¹	3
ELEG 4361	Design of Digital System Applications Using Field Programmable Gate Array Devices	3
ELEG 4371	Foundation and Application of Internet of Things	3
ELEG 4377	Machine Learning for Engineering Applications	3
ELEG 4378	Mobile Edge Computing	3

¹ Special topics courses vary in content and may cover areas such as artificial intelligence, machine learning, cybersecurity, and power systems.

Technical Electives through Five-Year BS/MS Degree Plan Option

Students may, upon approval to the Five-Year BS/MS Degree Plan (<https://www.pvamu.edu/engineering/departments/five-year-bsms-programs/>) Option, 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. The following courses must be completed or currently enrolled in prior to enrolling in upper-division courses:

CHEG 2308	Eco Anal Technical Application	3
CHEM 1403	Chemistry for Engineers	4
CHEM 1112	General Chemistry Lab II	1
ELEG 1301	Programming for Computer Engineering I	3
ELEG 1321	Programming for Computer Engineering II	3
ELEG 2321	Data Structure and Algorithm with Python	3
ELEG 2331	Advanced Programming and Applications	3
ELEG 1101	Intro Engr Computer Sci & Tech	1

ELEG 1102	Introduction to Electrical and Computer Engineering Laboratory	1
ELEG 2101	Electric Circuits Laboratory	1
ELEG 2305	Network Theory I	3
ENGL 1301	Freshman Composition I	3
ENGL 2311	Technical and Business Writing	3
MATH 2413	Calculus with Analytic Geometry I	4
MATH 2414	Calculus with Analytic Geometry II	4
MATH 2320	Differential Equations	3
MATH 2305	Discrete Mathematics	3
PHYS 2125	University Physics Lab I	1
PHYS 2325	University Physics I	3
PHYS 2126	University Physics Lab II	1
PHYS 2326	University Physics II	3

Bachelor of Science in Computer Engineering Degree Sequence

Core: <https://catalog.pvamu.edu/universitycorecurriculum/>

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Communication Core		3 Communication Core	3
Mathematics Core		4 MATH 2414	4
MATH 2413		ELEG 1321	3
ELEG 1101		1 Component Area Option One	3
ELEG 1102		1 CVEG 2304	
ELEG 1301		3 Life and Physical Sciences Core	3
Component Area Option Two Core		3 PHYS 2325	
		PHYS 2125	1
Total		15 Total	17

Total Hours: 32

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours
MATH 2320		3 ELEG 2305	3
Life and Physical Sciences Core		3 ELEG 2101	1
PHYS 2326		ELEG 2131	1
PHYS 2126		1 ELEG 2311	3
CHEM 1403		4 ELEG 2331	3
CHEM 1112		1 Social and Behavioral Science Core	3
ELEG 2321		3 CHEG 2308	
		Creative Arts Core	3
Total		15 Total	17

Total Hours: 32

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
MATH 3302		3 ELEG 3302	3
MATH 2305		3 ELEG 3307	3
ELEG 3301		3 ELEG 3107	1
ELEG 4330		3 ELEG 3304	3
ELEG 3303		3 ELEG 4339	3

American History Core	3 American History Core	3
Total	18 Total	16

Total Hours: 34

Senior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
ELEG 4325		3 ELEG 4333	3
ELEG 4247		2 ELEG 4248	2
Government/Political Science Core		3 Government/Political Science Core	3
POSC 2305		POSC 2306	
Technical Elective		3 Technical Elective	3
Technical Elective		3 Language, Philosophy, and Culture Core	3
Total		14 Total	14

Total Hours: 28

Name	Unit
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Total Semester Credit Hours: 126

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

BS Computer Engineering

Degree Skills

1. Ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. Ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
3. Ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts

Concentration Skills

1. Data analytics
2. Cybersecurity
3. Machine learning

Co-curricular and Extracurricular Skills

1. Teamwork
2. Communication skills
3. Problem solving and logical thinking

Department of Electrical and Computer Engineering, Graduate

Master of Science in Electrical Engineering Degree Program

Purpose and Goals

The primary purpose of the Electrical Engineering graduate 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) Energy and Power Systems, (v) Cybersecurity, and (vi) Bioinformatics.
- 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.

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.

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 PhD program. After the student completes nine hours of doctoral classwork, 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 PhD 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 student 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. The chair and the student will follow the procedure established by the Office of Graduate Studies.

The Doctoral Advisory Committee 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 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. The procedures published by the Office of Graduate Studies must be followed.

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 and Office of Graduate Studies guidelines.

Preliminary Examination

When the student has completed nine (9) semester hours of coursework or two semesters 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 PhD 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 PhD 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 coursework.
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 is 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 requirements 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 coursework 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 the completion of a full schedule (at least 9 semester hours) of graduate coursework 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 both papers submitted for publication. The papers should be based on the results of the candidate's doctoral research.

Good Standing

PhD 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 the 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 PhD 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) and qualitative information (undergraduate preparation, publications, and letters of recommendation). Criteria for assignment of doctoral assistantships to new students include quantitative information (graduate GPA 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 Aid & Scholarships (<https://www.pvamu.edu/faid/>).

Electrical Engineering, MSEE

Master of Science in Electrical Engineering Degree Program Requirements

General Requirements

Select two of the following: 6

GNEG 5304 Engineering Probability and Statistics

GNEG 5306 Engineering Analysis I

GNEG 5307 Engineering Analysis II

GNEG 5313 Engineering Numerical Methods

Technical Electives (see list of technical elective options below)

At least two technical electives must be taken in the Electrical Engineering department 12

Concentration (select one concentration from below): 12

Total Hours 30

Thesis Concentration

ELEG 5699 Thesis 6

Select two classes from one of the tracks listed below: 6

Computer Engineering Track

ELEG 6310 Advanced Computer Systems Design

ELEG 6311 Computer Architecture & Advanced Logic Design

ELEG 6312 The Internet: Design and Implementation

ELEG 6314 Fault Tolerant Computing

ELEG 6315 Information Networks

ELEG 6316 Statistical Learning for Big Data

ELEG 6318 Deep Learning

ELEG 6360 Modern Artificial Intelligence

ELEG 6361 Advanced Artificial Intelligence

ELEG 6365 Intro to High Perf Computing

ELEG 6370 Selected Topics in Deep Learning

ELEG 6380 Introduction to Bioinformatics

ELEG 6381 Advanced Bioinformatics

ELEG 6382 Computational Systems Biology

ELEG 6383 Computational Modeling of Biological Systems

Communication and Signal Processing Track

ELEG 6312 The Internet: Design and Implementation

ELEG 6320 Wireless Networks

ELEG 6321 Digital Communication

ELEG 6322 Coding Theory

ELEG 6324 Advanced Broadband Communications Systems

ELEG 6325 Telecommunications Network Security

ELEG 6330 Signal Detection and Estimation

ELEG 6331 Stochastic Processes

ELEG 6333 Wavelets and Their Applications

Microelectronics Track

ELEG 6342 VLSI and ULSI Design

ELEG 6350	Advanced Photonics Materials and Devices	
ELEG 6351	Advanced Quantum Devices	
ELEG 6352	Advanced Characterization of Materials and Devices	
ELEG 6354	Advanced Solid State	
Power Engineering Track		
ELEG 6371	Power System Faults Protective	
ELEG 6372	Power System Stability	
ELEG 6373	High Voltage Direct Current	
ELEG 6374	Power Gen Oper Control	
ELEG 6375	Advanced Power System	
ELEG 6376	Power Electronics Power System	
ELEG 6377	Advanced Electric Drives	
ELEG 6378	Advanced Power Electronics	
ELEG 6385	Fundamentals of Power Electronics and Motor Drives	
ELEG 6386	Renewable Energy Sources	
ELEG 6387	Smart Grid: Fundamentals of Design and Analysis	
Total Hours		12

Non-Thesis Concentration

ELEG 5391	Engineering Project	3
Select three classes from one of the tracks listed below:		9

Computer Engineering Track

ELEG 6310	Advanced Computer Systems Design	
ELEG 6311	Computer Architecture & Advanced Logic Design	
ELEG 6312	The Internet: Design and Implementation	
ELEG 6314	Fault Tolerant Computing	
ELEG 6315	Information Networks	
ELEG 6316	Statistical Learning for Big Data	
ELEG 6318	Deep Learning	
ELEG 6360	Modern Artificial Intelligence	
ELEG 6361	Advanced Artificial Intelligence	
ELEG 6365	Intro to High Perf Computing	
ELEG 6370	Selected Topics in Deep Learning	
ELEG 6380	Introduction to Bioinformatics	
ELEG 6381	Advanced Bioinformatics	
ELEG 6382	Computational Systems Biology	
ELEG 6383	Computational Modeling of Biological Systems	

Communication and Signal Processing Track

ELEG 6312	The Internet: Design and Implementation	
ELEG 6320	Wireless Networks	
ELEG 6321	Digital Communication	
ELEG 6322	Coding Theory	
ELEG 6324	Advanced Broadband Communications Systems	
ELEG 6325	Telecommunications Network Security	
ELEG 6331	Stochastic Processes	
ELEG 6333	Wavelets and Their Applications	
ELEG 6330	Signal Detection and Estimation	

Microelectronics Track

ELEG 6342	VLSI and ULSI Design	
ELEG 6350	Advanced Photonics Materials and Devices	
ELEG 6351	Advanced Quantum Devices	
ELEG 6352	Advanced Characterization of Materials and Devices	

ELEG 6354	Advanced Solid State
Power Engineering Track	
ELEG 6371	Power System Faults Protective
ELEG 6372	Power System Stability
ELEG 6373	High Voltage Direct Current
ELEG 6374	Power Gen Oper Control
ELEG 6375	Advanced Power System
ELEG 6376	Power Electronics Power System
ELEG 6377	Advanced Electric Drives
ELEG 6378	Advanced Power Electronics
ELEG 6385	Fundamentals of Power Electronics and Motor Drives
ELEG 6386	Renewable Energy Sources
ELEG 6387	Smart Grid: Fundamentals of Design and Analysis

Total Hours**12**

Technical Electives

Electrical Engineering Technical Electives

ELEG 6310	Advanced Computer Systems Design	3
ELEG 6311	Computer Architecture & Advanced Logic Design	3
ELEG 6312	The Internet: Design and Implementation	3
ELEG 6314	Fault Tolerant Computing	3
ELEG 6315	Information Networks	3
ELEG 6316	Statistical Learning for Big Data	3
ELEG 6318	Deep Learning	3
ELEG 6320	Wireless Networks	3
ELEG 6321	Digital Communication	3
ELEG 6322	Coding Theory	3
ELEG 6324	Advanced Broadband Communications Systems	3
ELEG 6325	Telecommunications Network Security	3
ELEG 6330	Signal Detection and Estimation	3
ELEG 6331	Stochastic Processes	3
ELEG 6333	Wavelets and Their Applications	3
ELEG 6342	VLSI and ULSI Design	3
ELEG 6350	Advanced Photonics Materials and Devices	3
ELEG 6351	Advanced Quantum Devices	3
ELEG 6352	Advanced Characterization of Materials and Devices	3
ELEG 6354	Advanced Solid State	3
ELEG 6360	Modern Artificial Intelligence	3
ELEG 6361	Advanced Artificial Intelligence	3
ELEG 6365	Intro to High Perf Computing	3
ELEG 6370	Selected Topics in Deep Learning	3
ELEG 6371	Power System Faults Protective	3
ELEG 6372	Power System Stability	3
ELEG 6373	High Voltage Direct Current	3
ELEG 6374	Power Gen Oper Control	3
ELEG 6375	Advanced Power System	3
ELEG 6376	Power Electronics Power System	3
ELEG 6377	Advanced Electric Drives	3
ELEG 6378	Advanced Power Electronics	3
ELEG 6380	Introduction to Bioinformatics	3
ELEG 6381	Advanced Bioinformatics	3
ELEG 6382	Computational Systems Biology	3

ELEG 6383	Computational Modeling of Biological Systems	3
ELEG 6385	Fundamentals of Power Electronics and Motor Drives	3
ELEG 6386	Renewable Energy Sources	3
ELEG 6387	Smart Grid: Fundamentals of Design and Analysis	3
ELEG 6391	Special Topics in Elec Engr ¹	3
Other Technical Electives		
CHEG 5302	Microelectronics Materials	3
CINS 5306	Data Structures and Algorithms	3
COMP 5315	Design and Analysis of Algorithms	3
COMP 5324	Distributed Computing and Parallel Processing	3
CVEG 5300	Physical/Chemical Unit Operations in Water and Wastewater Treatment	3
CVEG 5303	Finite Element Analysis	3
GNEG 5304	Engineering Probability and Statistics	3
GNEG 5306	Engineering Analysis I	3
GNEG 5307	Engineering Analysis II	3
GNEG 5313	Engineering Numerical Methods	3
GNEG 5319	Special Topics	3
MCEG 5302	Advanced Thermodynamics	3
MCEG 5325	Advanced Engineering Materials	3

¹ Special topics courses vary in content and may cover areas such as artificial intelligence, machine learning, cybersecurity, and power systems.

Master of Science in Electrical Engineering Degree Sequence

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
General Requirement		3 General Requirement	3
Concentration Track Elective		3 Concentration Track Elective	3
Technical Elective		3 Technical Elective	3
Total		9 Total	9

Total Hours: 18

Second Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Concentration Track Elective - Non-Thesis Option or Technical Elective - Thesis Option		3 Option Non-Thesis Option	6
Technical Elective		3 ELEG 5391 and Technical Elective	
		Thesis Option GNEG 5608	
Total		6 Total	6

Total Hours: 12

Name	Unit
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Total Semester Credit Hours: 30

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

MS Electrical Engineering

Degree Skills

1. Analytical, technical and engineering design skills necessary to innovate and create electronic components, sensors and systems
2. Advanced training in one of the following areas of emphasis in electrical engineering: microelectronics, computer engineering, telecommunications and signal processing, energy and power systems, cybersecurity, and bioinformatics
3. Technical, cognitive and interpersonal skills

Concentration Skills

1. Computer engineering
2. Communication and signal processing and the power systems
3. Advanced skills in the microelectronics area

Co-curricular and Extracurricular Skills

1. Advanced skills in leadership and communication
2. Advanced skills in system design and analysis
3. Advanced skills in machine learning, deep learning and artificial intelligence

Electrical Engineering, PhD

Doctor of Philosophy in Electrical Engineering Degree Program Requirements

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 an 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 degree level.

Students that take the ELEG 6331 Stochastic Processes course (receiving a grade of at least a B) as a Master's degree student or as a non-degree seeking certificate student at PVAMU, who then proceed to the PhD-EE program, must substitute for the Stochastic Processes course a graduate level (5000 – 7000 level) course that is related to their dissertation topic. This substitution course requires the approval of the student's dissertation advisor or the graduate coordinator. Note: No more than three 5000 level courses may be taken toward the free elective requirements for the PhD-EE.

Required Courses

ELEG 6101	Graduate Seminar I	1
ELEG 6102	Graduate Seminar II	1
ELEG 6331	Stochastic Processes	3
ELEG 7601	Doctoral Research I	6
ELEG 7602	Doctoral Research II	6
ELEG 7691	Doctoral Dissertation I	6
ELEG 7692	Doctoral Dissertation II	6

Elective Courses Prescribed for Students

6000 or 7000 level Electrical Engineering courses selected from one of the Electrical Engineering tracks.	9
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Free Electives

5000 to 7000 level graduate courses, but not more than 9 SCH course at the 5000 level will be accepted.	15
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Total Hours	53
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Courses for Electrical Engineering Tracks

(A) Computer Engineering Track

ELEG 6310	Advanced Computer Systems Design	3
ELEG 6311	Computer Architecture & Advanced Logic Design	3
ELEG 6312	The Internet: Design and Implementation	3
ELEG 6314	Fault Tolerant Computing	3
ELEG 6315	Information Networks	3
ELEG 6316	Statistical Learning for Big Data	3
ELEG 6318	Deep Learning	3

ELEG 6360	Modern Artificial Intelligence	3
ELEG 6361	Advanced Artificial Intelligence	3
ELEG 6365	Intro to High Perf Computing	3
ELEG 6370	Selected Topics in Deep Learning	3
ELEG 6380	Introduction to Bioinformatics	3
ELEG 6381	Advanced Bioinformatics	3
ELEG 6382	Computational Systems Biology	3
ELEG 6383	Computational Modeling of Biological Systems	3
ELEG 7310	Advanced Topics in Computer Engineering	3

(B) Communication and Signal Processing Track

ELEG 6320	Wireless Networks	3
ELEG 6321	Digital Communication	3
ELEG 6322	Coding Theory	3
ELEG 6324	Advanced Broadband Communications Systems	3
ELEG 6325	Telecommunications Network Security	3
ELEG 6330	Signal Detection and Estimation	3
ELEG 6331	Stochastic Processes	3
ELEG 6312	The Internet: Design and Implementation	3
ELEG 6333	Wavelets and Their Applications	3

(C) Microelectronics Track

ELEG 6342	VLSI and ULSI Design	3
ELEG 6350	Advanced Photonics Materials and Devices	3
ELEG 6351	Advanced Quantum Devices	3
ELEG 6352	Advanced Characterization of Materials and Devices	3
ELEG 6354	Advanced Solid State	3

(D) Power Engineering Track

ELEG 6371	Power System Faults Protective	3
ELEG 6372	Power System Stability	3
ELEG 6373	High Voltage Direct Current	3
ELEG 6374	Power Gen Oper Control	3
ELEG 6375	Advanced Power System	3
ELEG 6376	Power Electronics Power System	3
ELEG 6377	Advanced Electric Drives	3
ELEG 6378	Advanced Power Electronics	3
ELEG 6385	Fundamentals of Power Electronics and Motor Drives	3
ELEG 6386	Renewable Energy Sources	3
ELEG 6387	Smart Grid: Fundamentals of Design and Analysis	3

Free Electives**Electrical Engineering Technical Electives**

ELEG 6310	Advanced Computer Systems Design	3
ELEG 6311	Computer Architecture & Advanced Logic Design	3
ELEG 6312	The Internet: Design and Implementation	3
ELEG 6314	Fault Tolerant Computing	3
ELEG 6315	Information Networks	3
ELEG 6316	Statistical Learning for Big Data	3
ELEG 6318	Deep Learning	3
ELEG 6320	Wireless Networks	3
ELEG 6321	Digital Communication	3

ELEG 6322	Coding Theory	3
ELEG 6324	Advanced Broadband Communications Systems	3
ELEG 6325	Telecommunications Network Security	3
ELEG 6330	Signal Detection and Estimation	3
ELEG 6331	Stochastic Processes	3
ELEG 6333	Wavelets and Their Applications	3
ELEG 6342	VLSI and ULSI Design	3
ELEG 6350	Advanced Photonics Materials and Devices	3
ELEG 6351	Advanced Quantum Devices	3
ELEG 6352	Advanced Characterization of Materials and Devices	3
ELEG 6354	Advanced Solid State	3
ELEG 6360	Modern Artificial Intelligence	3
ELEG 6361	Advanced Artificial Intelligence	3
ELEG 6365	Intro to High Perf Computing	3
ELEG 6370	Selected Topics in Deep Learning	3
ELEG 6371	Power System Faults Protective	3
ELEG 6372	Power System Stability	3
ELEG 6373	High Voltage Direct Current	3
ELEG 6374	Power Gen Oper Control	3
ELEG 6375	Advanced Power System	3
ELEG 6376	Power Electronics Power System	3
ELEG 6377	Advanced Electric Drives	3
ELEG 6378	Advanced Power Electronics	3
ELEG 6380	Introduction to Bioinformatics	3
ELEG 6381	Advanced Bioinformatics	3
ELEG 6382	Computational Systems Biology	3
ELEG 6383	Computational Modeling of Biological Systems	3
ELEG 6385	Fundamentals of Power Electronics and Motor Drives	3
ELEG 6386	Renewable Energy Sources	3
ELEG 6387	Smart Grid: Fundamentals of Design and Analysis	3
ELEG 6391	Special Topics in Elec Engr ¹	3
ELEG 7310	Advanced Topics in Computer Engineering	3
Other Technical Electives		
CHEG 5302	Microelectronics Materials	3
CINS 5306	Data Structures and Algorithms	3
COMP 5315	Design and Analysis of Algorithms	3
CVEG 5300	Physical/Chemical Unit Operations in Water and Wastewater Treatment	3
CVEG 5303	Finite Element Analysis	3
GNEG 5304	Engineering Probability and Statistics	3
GNEG 5306	Engineering Analysis I	3
GNEG 5307	Engineering Analysis II	3
GNEG 5313	Engineering Numerical Methods	3
GNEG 5319	Special Topics ¹	3
MCEG 5302	Advanced Thermodynamics	3
MCEG 5325	Advanced Engineering Materials	3

¹ Special topics courses vary in content and may cover areas such as artificial intelligence, machine learning, cybersecurity, and power systems.

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

PhD Electrical Engineering

Degree Skills

1. Ability to communicate new and innovative research findings to engineers and scientists
2. Proficient in the general body of knowledge in electrical engineering
3. Advanced understanding of specialized knowledge in electrical engineering and specialized areas of computer engineering, Communication and Signal Processing, Microelectronics and Power Engineering

Concentration Skills

1. Advanced understanding of deep learning for artificial intelligence
2. Advanced understanding of the smart grid
3. Advanced understanding of cybersecurity and broadband communications

Co-curricular and Extracurricular Skills

1. Ability to teach/mentor in the electrical engineering field
2. Ability to propose and develop novel solutions to electrical engineering problems
3. Ability to lead original research and development in electrical engineering

Department of Mechanical Engineering

Purpose and Goals

The Mechanical Engineering Department is one of five departments in the Roy G. Perry College of Engineering. As one of the broadest engineering branches, mechanical engineering includes:

- Aerodynamics and fluid mechanics
- Combustion and energy systems
- Design and manufacturing
- Dynamics systems and controls
- Robotics
- Materials and nanomaterial structures
- Vibrations, acoustics, and fluid interactions
- Biomechanics

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.

Admission Requirements

Table 1. First-time Freshmen Requirements for Direct Admission to the Mechanical Engineering Program

Academic Major	Meet PVAMU Admission Standards	High School GPA	SAT/ACT	High School Rank	THEA Passed
Mechanical Engineering	Yes	3.00	New SAT: 950/18		

Table 2. Transfer Students Requirements for Direct Admission to the Mechanical Engineering Program

Academic Major	Meet PVAMU Admission Standards	Transfer Grades	Transfer GPA (Math; Science and Engineering)
Mechanical Engineering	Yes	"C" or Greater	2.50

Accreditation Status

The Mechanical Engineering program is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

Requirements for Mechanical Engineering as a Minor

Students must complete the following 18 SCH of courses to satisfy the Minor requirements.

MCEG 3302	Thermodynamics II	3
MCEG 3303	Manufacturing Processes	3
MCEG 3304	Machine Design I	3
MCEG 3306	Fluid Mechanics	3
Two Approved 3000 or 4000 Level MCEG Courses		6
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.

Courses

MCEG 1101 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 1102.

MCEG 1102 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 2301 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 2414 or MATH 2024) and (PHYS 2325 or PHYS 2513).

MCEG 2302 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 2301 or CVEG 2043.

MCEG 2303 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 1303 or CHEM 1033) or (CHEM 1403 or CHEM 1034) or (CHEM 1304 or CHEM 1043).

MCEG 3101 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 2325 or PHYS 2513) and (PHYS 2125 or PHYS 2511) and (PHYS 2126 or PHYS 2521).

MCEG 3102 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 3101 or MCEG 3011) and (MCEG 3301 (may be taken concurrently) or MCEG 3013 (may be taken concurrently)) and (ELEG 1304 (may be taken concurrently) or ELEG 1043 (may be taken concurrently)).

MCEG 3103 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 3303.

MCEG 3301 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 2320 or MATH 2043) and (MCEG 3306 or MCEG 3063).

MCEG 3302 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 2301 or MCEG 2013) and (MATH 2414 or MATH 2024).

MCEG 3303 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 2303 or MCEG 2023.

MCEG 3304 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 2332 or CVEG 2063) and (MCEG 1102 or MCEG 1021).

MCEG 3305 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 1102 or MCEG 1021) and (MCEG 2302 or MCEG 2053).

MCEG 3306 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 2301 or MCEG 2013) and (MATH 2320 (may be taken concurrently) or MATH 2043 (may be taken concurrently)) and (MCEG 2302 (may be taken concurrently) or MCEG 2053 (may be taken concurrently)).

MCEG 3307 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 4317 (may be taken concurrently) or MATH 4173 (may be taken concurrently).

MCEG 3312 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 3311 or CHEG 3113.

MCEG 3319 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 4317 (may be taken concurrently) or MATH 4173.

MCEG 3615 Mechanical Engineering Internship I: 6 semester hours.

An internship program of work experience with an approved engineering firm.

MCEG 4247 Senior Design and Professionalism-1: 2 semester hours.

This is the first course of a two-semester capstone experience (MCEG 4482 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 3304 or MCEG 3043) and (MCEG 3101 or MCEG 3011) and (MCEG 3302 or MCEG 3023) and (MCEG 3301 (may be taken concurrently) or MCEG 3013).

MCEG 4248 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 4247 or MCEG 4472.

MCEG 4304 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 3304 or MCEG 3043) and (MCEG 3305 (may be taken concurrently) or MCEG 3053 (may be taken concurrently)).

MCEG 4306 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 forced 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 2302 or MCEG 2053) and (MATH 2043 or MATH 2320).

MCEG 4308 Design Thinking and Device Development: 3 semester hours.

This course, designed for non-business majors, teaches students to identify customer needs and manage critical resources while incorporating constraints governing how products must be designed, developed, approved, and brought to market. This course is intended to introduce students to some of the complexities of designing robust devices that meet customer needs and engineering requirements. Students will work in teams on projects that reinforce these concepts. Students will be equipped with the analytical skills necessary to understand linkages between research and development, product design, intellectual property protection, and entrepreneurship.

MCEG 4309 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 2332 or CVEG 2063) and (MCEG 3301 (may be taken concurrently) or MCEG 3013 (may be taken concurrently)).

MCEG 4316 Special Topics: 3 semester hours.

Selected current and emerging topics in mechanical engineering depending on need determined by the department.

MCEG 4318 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 3302 (may be taken concurrently) or MCEG 3023 and (MCEG 3306 or MCEG 3063).

MCEG 4399 Independent Study: 3 semester hours.

Reading, research, and/or field work in selected topics.

MCEG 4615 Mechanical Engineering Internship II: 6 semester hours.

Continuation of MCEG 3156.

MCEG 5302 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 5303 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 5312 Advanced Combustion Processes: 3 semester hours.

Advanced Combustion Processes will cover the advanced treatment of fundamental combustion and flame processes, conservation equations for reacting gas mixtures, reaction-kinetic processes that govern combustion rates, the structure of diffusion and premixed flames, and the dynamics of droplet evaporation and combustion. Topics covered include thermochemistry, heat and mass transfer, chemical kinetics, laminar premixed and diffusion flames, droplet burning. Optional topics may include turbulent flames, burning of solids, or complex combustion systems.

MCEG 5316 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, Eckman Row, and other viscous flows such as Boundary Layer Analysis. An introduction to perturbation to theory will also be given.

MCEG 5318 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 5322 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. Lumped, integral, differential, and numerical analysis will be included and a term project will be required.

MCEG 5324 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 5325 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 5326 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 5332 Multiphase Flow and Heat Transfer: 3 semester hours.

Multiphase Flow and Heat Transfer will cover the advanced treatment of fundamental aspects of heat, mass, and momentum transfer in multiphase flow systems. Topics include conservation laws, flows with particles, drops and bubbles, boiling, and condensation.

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.

Department of Mechanical Engineering, Undergraduate

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, university and alumni 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.

CHEM 1403	Chemistry for Engineers	4
CHEM 1112	General Chemistry Lab II	1
ENGL 2311	Technical and Business Writing	3
PHYS 2325 & PHYS 2125	University Physics I and University Physics Lab I	4
MATH 2413	Calculus with Analytic Geometry I	4
MATH 2414	Calculus with Analytic Geometry II	4
MCEG 1101	Intro Engr Cs Tech	1
MCEG 1102	Introduction to Mechanical Engineering Drawing and Design Lab I	1
ELEG 1304	Computer Applications in Engineering	3

Mechanical Engineering, BSME

Bachelor of Science in Mechanical Engineering Degree Program Requirements

Core Curriculum 42 Credit Hours

Communication (Select Two)		6
Mathematics		3
MATH 2413	Calculus with Analytic Geometry I	
Life and Physical Sciences		6
PHYS 2325	University Physics I	
PHYS 2326	University Physics II	
Language, Philosophy, and Culture (Select One)		3
Creative Arts (Select One)		3
American History (Select Two)		6
Government/Political Science		6
POSC 2305	American Government	
POSC 2306	Texas Government	
Social and Behavioral Science		3
CHEG 2308	Eco Anal Technical Application	
Component Area Option One		3
CVEG 2304	Global Development Issues	

Component Area Option Two (Select One)		3
College and Support Area Requirements		
MATH 2320	Differential Equations	3
MATH 2413	Calculus with Analytic Geometry I	1
MATH 2414	Calculus with Analytic Geometry II	4
MATH 3302	Probability and Statistics	3
MATH 4317	Advanced Math for Engineers	3
CHEM 1112	General Chemistry Lab II	1
CHEM 1403	Chemistry for Engineers	4
OR		
CHEM 1303 & CHEM 1304	General Inorganic Chemistry I and General Inorganic Chemistry II	
PHYS 2125	University Physics Lab I	1
PHYS 2126	University Physics Lab II	1
CVEG 2301	Engineering Mechanics I	3
MCEG 2302	Engineering Mechanics II	3
ELEG 1304	Computer Applications in Engineering	3
ELEG 2315	Introduction to Electrical Engineering	3
MCEG 1101	Intro Engr Cs Tech	1
MCEG 1102	Introduction to Mechanical Engineering Drawing and Design Lab I	1
MCEG 2301	Thermodynamics I	3
MCEG 4247	Senior Design and Professionalism-1	2
MCEG 4248	Senior Design and Professionalism II	2
Major Requirements		
MCEG 2303	Materials Science and Engineering	3
MCEG 3101	Measurement and Instrumentation Laboratory	1
MCEG 3301	Heat Transfer	3
MCEG 3102	Thermal Science Laboratory	1
MCEG 3302	Thermodynamics II	3
MCEG 3303 & MCEG 3103	Manufacturing Processes and Manufacturing Processes Laboratory	4
MCEG 3304	Machine Design I	3
MCEG 3305	Kinematic Design and Analysis	3
MCEG 3306	Fluid Mechanics	3
MCEG 4304	Machine Design II	3
MCEG 4306	Dynamic Systems and Controls	3
MCEG 4309	Finite Element Analysis and Design	3
CVEG 2332	Mechanics of Materials	3
Technical Electives		6
Total Hours		126

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.

MCEG 3307	Automatic Controls	3
MCEG 3319	Introduction to Robotics	3
MCEG 4308	Design Thinking and Device Development	3
MCEG 4316	Special Topics	3
MCEG 4318	Gas Dynamics	3
CHEG 4313	Process Modeling and Simulation	3
CHEG 4315	Bioengineering	3
CVEG 3304	Structural Analysis	3

CVEG 3301	Environmental Engineering	3
CVEG 4303	Water Resources Engineering	3
CVEG 4304	Systems Engineering	3
ELEG 3303	Physical Principles of Solid State Devices	3
MATH 3307	Linear Algebra	3
MATH 4306	Numerical Analysis	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 College of Engineering Academic Programs and Degree Plans (p. 354)), apply up to six semester credit hours of graduate courses toward technical electives requirements.

Bachelor of Science in Mechanical Engineering Degree Sequence

Core: <https://catalog.pvamu.edu/universitycorecurriculum/> (<https://catalog.pvamu.edu/universitycorecurriculum/>)

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Mathematics Core		4 MATH 2414	4
MATH 2413		Life and Physical Sciences Core	3
ELEG 1304		3 PHYS 2325	
MCEG 1101		1 PHYS 2125	1
MCEG 1102		1 Communication Core	3
Component Area Option Two Core		3 CHEM 1403	4
Communication Core		3 CHEM 1112	1
Total		15 Total	16

Total Hours: 31

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours
American History Core		3 MATH 2320	3
CVEG 2301		3 MCEG 2301	3
Government/Political Science Core		3 MCEG 2302	3
POSC 2305 or 2306		CVEG 2332	3
MCEG 2303		3 MATH 3302	3
Life and Physical Sciences Core		3 Social and Behavioral Science Core	3
PHYS 2326		CHEG 2308	
PHYS 2126		1	
Total		16 Total	18

Total Hours: 34

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
MCEG 3304		3 MCEG 3302	3
MCEG 3101		1 Government/Political Science Core	3
MATH 4317		3 POSC 2306 or 2305	
MCEG 3305		3 MCEG 3303	3
MCEG 3306		3 MCEG 3103	1
Creative Arts Core		3 MCEG 4304	3
		ELEG 2315	3
Total		16 Total	16

Total Hours: 32

Senior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
MCEG 4309		3 MCEG 4306	3
MCEG 4247		2 MCEG 4248	2
Component Area Option One Core		3 American History Core	3
CVEG 2304		Technical Elective	3
MCEG 3102		1 Language, Philosophy, and Culture Core	3
MCEG 3301		3	
Technical Elective		3	
Total		15 Total	14

Total Hours: 29

Total Semester Credit Hours 126

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

BSME Mechanical Engineering

Degree Skills

1. Ability to address complex technical challenges by applying core principles of mathematics, science, and engineering
2. Ability to design machines, devices, and components that meet specified customer requirements with consideration of public health & safety as well as economic and environmental impact
3. Ability to work effectively toward engineering solutions both independently and as part of a team

Co-curricular and Extracurricular Skills

1. Ability to define objectives and assume leadership roles in accomplishing organizational goals
2. Ability to effectively collaborate with team members and efficiently implement available resources to develop competitive machines for national design contests
3. Ability to successfully interface with external partners, including technical advisors and corporate sponsors

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.

The mission of the Architecture program is to prepare college graduates for entry into design and management positions in the profession, to attend graduate school, and to obtain professional registration.

The mission of the Construction Science program is to empower students to assume a broad range of professional positions in the construction industry.

The mission of the Digital Media Arts program is dedicated to educating and training students for significant roles as practitioners and leaders in graphic design, digital art, interactive media, and design research.

The mission of the Community Development graduate program prepares graduates to address the needs of our society, develop leadership roles in rebuilding cities, and improve the quality of the built environment.

Vision

Graduates of the School of Architecture will participate in the contemporary milieu, and 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 Digital Media Arts, is dedicated to accomplishing its 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, digital media arts, and community development. Students 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

Program	Degree Offered
Architecture	BS, MARCH
Community Development	MCD
Construction Science	BS
Digital Media Arts	BS

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 professional degree programs in architecture offered by institutions with U.S. regional accreditation, recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture, and the Doctor of Architecture. A program may be granted an eight-year term, an eight-year term with conditions, or a two-year term of continuing accreditation, or a three-year term of initial accreditation, depending on the extent of its conformance with established education standards.

Doctor of Architecture and Master of Architecture degree programs may require a non-accredited undergraduate degree in architecture for admission. However, the non-accredited 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 + 37 graduate credit hours)

Next accreditation visit: 2027

The Bachelor of Construction Science is accredited by the American Council for Construction Education (ACCE).

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 develops 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 (<http://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, construction science, and/or digital media arts 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 a 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 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 courses in all the degrees offered in the School of Architecture. 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 advisors 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, maybe 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 must be determined with the assistance of the student academic advising staff prior to registration.**

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 graduation must file 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, Sustainable Design, Construction Science, Digital Media Arts, and Art. The students should consult with an academic advisor and have a Minor Approval Form completed, approved, and signed by the Program Director and the Dean. 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 more than once in architecture, construction science, or digital media arts, students must request and have the permission of the dean.

Architecture Minor

ARCH 1307	Visual Communications	3
ARCH 1303	Architectural Design I	3
ARCH 1301	Architectural History I	3
ARCH 1302	History of Architecture II	3
Advanced Architecture Electives ¹		6
Total Hours		18

¹ Architecture electives must be 3000 or 4000 level.

Architecture for Construction Science majors

ARCH 1626	Architectural Design II	6
ARCH 2603	Architecture Design III	6
Advanced Architecture Electives ¹		6
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.

Art Minor

ART MINOR

ARTS 1311	Design I (2-Dimensional)	3
ARTS 1316	Drawing I	3
ARTS 1301	Art Appreciation	3
ARTS 2316	Painting	3
Choose two courses from the courses listed below:		6
ARTS 3314	Sculpture I	
ARTS 3317	Watercolor	
ARTS 3319	Printmaking	
ARTS 3351	Crafts Design	
ARTS 4310	Creative Photography I	
ARTS 4313	Printmaking II	
ARTS 4321	Book Arts	
Total Hours		18

Construction Science Minor

A minor in Construction Science can be obtained by completing 18 credit hours. Recommended courses are:

CONS 3301	Construction Estimating	3
CONS 3363	Surveying and Soils	3
CONS 4360	Construction Labor and Safety	3
CONS 4363	Construction Law and Ethics	3

CONS 4375	Scheduling and Mobilization	3
Select one of the following:		3
CONS 4341	Residential Construction	
CONS 4342	Commercial Construction	
CONS 4344	Highway/Heavy Construction	
CONS 4345	Facilities Management	

Total Hours **18**

Digital Media Arts Minor

ART MINOR

ARTS 1311	Design I (2-Dimensional)	3
DGMA 2317	Fundamentals of Digital Imaging	3
DGMA 2318	Fundamentals of Interactive Media	3
ARTS 2331	Graphic Design History	3

Choose two courses from the courses listed below: 6

ARTS 1312	Design II	
ARTS 1315	Creative Thinking	
ARTS 2336	Sign + Symbol	
ARTS 3319	Printmaking	
ARTS 3351	Crafts Design	
ARTS 4310	Creative Photography I	
DGMA 4323	Design Practice	

Total Hours **18**

Sustainable Design Minor

Theory & Practice

ARCH 3346	Sustainable Building ¹	3
ARCH 3347	Ecology and Man	3
ARCH 4366	Regenerative Design	3

Technical

ARCH 4363	Net Zero Energy Design I	3
ARCH 4364	Net Zero Energy Design II	3
ARCH 4376	Energy Modeling (Energy Modeling)	3

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.

School of Architecture Community Development Graduate Certificate Program

The School of Architecture under its graduate program in Community Development offers certificates in the following study areas:

- Community Planning
- Real Estate Development

The purpose of offering graduate certificates is to meet the additional educational needs of the community development professional. As job responsibilities change due to emerging new markets and demands, additional training or specialized training is often required. For example, an architect may become involved in the preservation of historic districts or the planning and development of a community; a developer is involved in the development of another country's infrastructure. 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 requirements. The Community Development Graduate Certificate 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 Community Planning and Real Estate Development 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.

Students must consult with their academic advisor to ensure the courses for the certificate meet the requirements of the declared degree program. If the courses do not apply to the declared degree plan, the courses for the certificate will not qualify for federal aid under CPoS requirements.

The certificate course work in Community Planning consists of 12 semester hours and certificate course work in Real Estate is 18 hours as follows:

Certificate in Community Planning

Total		12
CODE 5305	Community Development Planning Studio	3
CODE 5331	Community Growth Management and Leadership	3
CODE 5308	Community Analysis, Demography and GIS	3
CODE 5335	Comprehensive Project Studio	3

Certificate in Real Estate Development

CODE 5380	Principles of Real Estate I	3
CODE 5382	Law of Agency	3
CODE 5383	Law of Contract	3
CODE 5381	Principle of Real Estate II	3
CODE 5384	Promulgated Contract Forms	3
CODE 5385	Real Estate Finance	3
Total		18

Certificate Procedure

Step 1: Application for the Certificate Program

Apply to Graduate Studies for Admission. After being admitted by Graduate Studies, the student will be able to request consideration for Certificate 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 layout the certificate course selections. The Director will review the study plan for compliance with the established requirements for certificates.

Step 3: Issue of the Certificate

Upon completion of the certificate requirements, the student must notify the Director of their status by applying for the certificate. The student is required to pay a certificate fee of \$50 to cover the cost to administer the certificate. 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 professional organizations sponsored by the School of Architecture.

- American Institute of Architecture Students (AIAS)
- National Organization of Minority Architecture Students (NOMAS)
- Women in Architecture Students (WIAS)
- The Tau Sigma Delta National Honor Society in Architecture and Allied Arts (TSD)
- Alpha Rho Chi
- Construction Specifications Institute (CSI)
- Association of General Contractors (AGCS)
- National Association of Homebuilders (NAHB)
- AIGA PVAMU, the student group for design
- Panthers G.A.M.E.

Architecture Courses

ARCH 1301 Architectural History 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 1302 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 1303 Architectural Design I: 3 semester hours.

Introduction to basic design issues including form, 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 1307.

ARCH 1307 Visual Communications: 3 semester hours.

Multimedia techniques in graphics emphasizing orthographic projections, perspective, shade and shadow, color theory and freehand and digital drawing.

Co-requisite: ARCH 1303.

ARCH 1315 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, and Building Information Modeling (BIM) programs.

ARCH 1327 Multimedia Digital Application: 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 1626 Architectural 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 1303 or ARCH 1253.

ARCH 2312 Architectural Technology: 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 2603 Architecture Design III: 6 semester hours.

Problem solving and presentation of basic principles, concepts and ideas as applied to simple architectural problems

Prerequisites: ARCH 1626 or ARCH 1266.

ARCH 2604 Architecture Design IV: 6 semester hours.

Basic architectural design projects with an emphasis on site development, function, form and the design process.

Prerequisites: ARCH 2603 or ARCH 2256.

ARCH 3328 Materials and Methods: 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.

Prerequisites: ARCH 2312 or ARCH 2273.

ARCH 3329 Structural Systems I: 3 semester hours.

A study of the theory of various structural concepts. Emphasis is placed on statics and strength of materials.

Prerequisites: MATH 1316 or MATH 1123.

ARCH 3345 Environmental Systems: 3 semester hours.

Fundamentals of environmental systems for buildings with an emphasis on heating, cooling, and distribution systems.

ARCH 3346 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 3347 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 3625 Architecture Design V: 6 semester hours.

Building design as it relates to structure, circulation, context and support systems.

Prerequisites: (ARCH 2604 or ARCH 2266) and (ARCH 3329 (may be taken concurrently) or ARCH 3293 (may be taken concurrently)).

ARCH 3626 Architecture Design VI: 6 semester hours.

Analysis and design of structures of advanced complexity with emphasis on interrelationships of building systems.

Prerequisites: ARCH 3625 or ARCH 3256.

ARCH 4333 INTL EDUCATION AND TRAVEL INIT: 3 semester hours.

The study of architecture and building design focusing on historical and/or current projects in the country of _____. Included in the course will be a trip to _____ that will focus on exploring the methods and practice of architecture and construction in this country.

Prerequisites: (ARCH 2233 or ARCH 1301) and (ARCH 2243 or ARCH 1302).

ARCH 4343 Structural Systems II: 3 semester hours.

A study of theory, behavior and design of structural systems in steel and timber.

Prerequisites: ARCH 3329 or ARCH 3293 and (MATH 1123 or MATH 1316).

ARCH 4344 CAD Construction Documents and Codes: 3 semester hours.

The organization, development, and preparation of a representative set of working drawings using computer aided design.

Prerequisites: ARCH 1315 or ARCH 2223.

ARCH 4359 Professional Practice: 3 semester hours.

Overview of the ethical, legal and administrative responsibilities of the architect. The study of relationships between the architect, the client, and the contractor involved in comprehensive architectural services and emerging techniques of practice.

ARCH 4361 Landscape Architecture: 3 semester hours.

Principles of site development as related to climate, topography, and intended use.

ARCH 4363 Net Zero Energy Design I: 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 4364 Net Zero Energy Design II: 3 semester hours.

This course focuses on strategic decarbonization of new and existing buildings, reduction of dependence on fossil fuels and the positive impact on the environment as well as human health. This course will reinforce the adoption of heat pump technologies that can help reduce the carbon footprint of buildings.

ARCH 4366 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 4367 Introduction to Interior Design: 3 semester hours.

Introduction to the profession and practice of interior design.

ARCH 4368 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 4373 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 2322 or ARCH 2223.

ARCH 4374 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 1315 or ARCH 2223.

ARCH 4375 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 4376 Energy Modeling: 3 semester hours.

Utilize energy, solar, and daylighting modeling software to determine how to cost effectively achieve high performing buildings.

ARCH 4397 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 4399 Independent Study: 1-3 semester hour.

Readings, research, and/or field work on selected topics.

ARCH 4640 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 4645 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 3626 or ARCH 3266.

ARCH 4647 Architecture Design VIII: 6 semester hours.

Advanced problems in architecture and planning.

Prerequisites: ARCH 4645 or ARCH 4456.

ARCH 4698 Special Projects: 6 semester hours.

Unique design studio projects tailored to learning objectives. May be repeated for credit.

Prerequisites: ARCH 2266 or ARCH 2626 or ARCH 2604.

ARCH 4699 Independent Study: 1-6 semester hour.

Readings, research, and/or field work on selected topics.

ARCH 5159 Prof Employmnt Dev-Soft Skills: 1 semester hour.

Graduating senior seminar for Architecture majors to provide an introduction to industry options with an emphasis preparing for success in their career by improving their "soft skills."

ARCH 5348 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 4343 or ARCH 4433.

ARCH 5351 Research Seminar: 3 semester hours.

Research and programming for the integrated Project Studio.

ARCH 5374 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 5397 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 5650 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 5656 Architecture Design IX: 6 semester hours.

Advanced design studio with emphasis on integrated architectural design projects.

ARCH 5698 Special Projects: 6 semester hours.

Design projects of differing lengths and content with group or individual involvement. May be repeated for credit.

ARCH 5699 Independent Study: 1-6 semester hour.

Readings, research, and/or field work on selected topics. Prerequisite: Consent of advisor.

ARCH 5957 Comprehensive Project Studio: 9 semester hours.

An integrated design project based on research and programming accomplished in ARCH 5351.

Art Courses

ARTS 1301 Art Appreciation: 3 semester hours.

An introductory course that emphasizes an understanding and appreciation for the visual arts (painting, drawing, sculpture, architecture, crafts etc.).

ARTS 1303 Art History I (Prehistoric to the 14th Century): 3 semester hours.

A survey of painting, sculpture, architecture and the minor arts from prehistoric times to the 13th century.

ARTS 1304 Art History II (14th century to the present): 3 semester hours.

Art from the 13th Century to contemporary times including Europe, Asia, the Far East and the Americas.

ARTS 1311 Design I (2-Dimensional): 3 semester hours.

Study of the elements and concepts of two-dimensional design.

ARTS 1312 Design II: 3 semester hours.

A continuation of Design I with emphasis on Research and concept development, Form and composition relationships, and Hand-crafted 3-dimensional media experimentation.

Prerequisites: ARTS 1311 or ARTS 1113.

ARTS 1315 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 1311 or ARTS 1113.

ARTS 1316 Drawing I: 3 semester hours.

An introductory course investigating a variety of media and techniques.

ARTS 2311 Design III: 3 semester hours.

Exploration of the language of color focusing on color properties and relationships, expressive qualities and symbolic meanings.

Prerequisites: ARTS 1311 or ARTS 1113.

ARTS 2316 Painting: 3 semester hours.

Basic principles and elements of painting.

ARTS 2328 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 2331 Graphic Design History: 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 2336 Sign + Symbol: 3 semester hours.

Investigation of images and symbols and their meanings within different contexts and employing various image-making techniques.

Prerequisites: ARTS 1316 or ARTS 1153 and (DGMA 2317 or DGMA 2173).

ARTS 2399 Independent Study: 1-3 semester hour.

Individual studies in studio art.

ARTS 3314 Sculpture I: 3 semester hours.

An exploration of various sculptural approaches in a variety of media, including additive and subtractive techniques.

ARTS 3317 Watercolor: 3 semester hours.

Study and practice in planning and execution of painting in transparent and opaque watercolor.

ARTS 3319 Printmaking: 3 semester hours.

Introduction to basic printmaking techniques, with emphasis on the proper use of tools and equipment.

ARTS 3351 Crafts Design: 3 semester hours.

The study of several crafts including clay, fibers, paper, textiles and plaster.

ARTS 3399 Independent Study: 1-3 semester hour.

Individual studies in studio art.

ARTS 4310 Creative Photography I: 3 semester hours.

An introduction to basic photographic processes and techniques used as an art medium.

ARTS 4313 Printmaking II: 3 semester hours.

Exploration of ideas using various printmaking media and techniques. This course builds upon Printmaking I (ARTS 3319) 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.

ARTS 4321 Book Arts: 3 semester hours.

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' books that incorporate sculpture, painting, printmaking, photography, encaustic, and graphic design.

ARTS 4399 Independent Study in Studio Art: 3 semester hours.

Individual studies in studio art.

Community Development Courses

CODE 5301 Introduction to Community Development Planning and Theory: 3 semester hours.

This course will examine the theoretical and the historical evolution of planning and community development strategies and models designed to increase the physical, social, and economic assets of the built environment from a community to global level; the role and responsibilities of the development process in the profession; spatial and temporal aspects of urban development; problems and consequences of planned and unplanned changes in urban society; and an understanding of the values and ethics affecting public and private actors shaping the practice of planning.

CODE 5305 Community Development Planning Studio: 3 semester hours.

This course explores practical research methods, planning systems, and spatial application techniques used as interactive tools in procedural planning, performance, and implementation processes to shape the future of communities, emphasizing approaches to enhancing communities.

CODE 5307 Community Development Financing: 3 semester hours.

Non-traditional financing strategies will be studied to support projects addressing the development of distressed communities.

CODE 5308 Community Analysis, Demography and GIS: 3 semester hours.

This course will introduce students to the fundamental analytical skills of studying and understanding the structure, function, goals, standards, and performance of a community. This course provides students to the use of demography and other geospatial technologies in the design and development of communities. This course is designed to enhance student's research skills with quantitative and qualitative methods and reasoning of data collection, analysis, and forecasting, while applying practical geospatial modeling for community development initiative inclusive decision making for sustainable planning outcomes in the area of Community Development.

CODE 5310 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 5312 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 5320 Introduction to Community Leadership: 3 semester hours.

Identifying and anticipating future leaders of communities through selected programs.

CODE 5321 Negotiation, Mediation and Facilitation: 3 semester hours.

Skill building strategies and exercises in critical thinking, listening and identity based communications.

CODE 5330 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 5331 Community Growth Management and Leadership: 3 semester hours.

This course provides an in-depth examination of global urban and regional development, planning, emphasizing strategic decisions and policies to improve urban areas and foster thriving communities. It addresses challenges linked to urbanization and regional development.

CODE 5332 Community Analysis: 3 semester hours.

The basic skills of studying and understanding the structure, function, goals, standards and performance of a community.

CODE 5334 Community Research: 3 semester hours.

Methods for recognizing information needs, sources and applications.

CODE 5335 Comprehensive Project Studio: 3 semester hours.

A comprehensive culminating project that synthesizes and demonstrates students' planning knowledge, skills, and tools acquired in previous courses; the course advances students' written, oral, and graphic communication skills through a practical community development project.

Co-requisite: CODE 5308.

CODE 5336 Community Physical Structure: 3 semester hours.

The physical context of the community and its impact on community health and development.

CODE 5351 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 5352 Campaigns and Gifts: 3 semester hours.

Campaign strategic planning and techniques used in driving donor decisions.

CODE 5354 Research for Capital and Grant Development: 3 semester hours.

Research for fundraising efforts.

CODE 5360 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 5361 Land Development Law and Use Strategies: 3 semester hours.

This course will introduce students to the principles of land development, the legal context of planning, and land use control strategies. The course will provide the overall development process for planning, the legal framework for planning institutions involving legislative and administrative procedures, ethical and managerial practices, and the understanding of regulatory and non-regulatory urban development planning processes of land-use impacts in the built environment at the local, state, and federal levels. The course also emphasizes equitable and inclusive decision making for sustainable planning outcomes in the area of Community Development.

CODE 5375 International Community Development Policies and Practices: 3 semester hours.

The role of government and private organizations in developing distressed foreign communities.

CODE 5380 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 5381 Principle 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 5308 or CODE 5803.

CODE 5382 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 5383 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 5382 or CODE 5823.

CODE 5384 Promulgated Contract Forms: 3 semester hours.

As one of the mandatory pre-licensing courses, this foundational course will teach the ins and outs of the Texas Real Estate Commission Promulgated Contract Forms.

CODE 5385 Real Estate Finance: 3 semester hours.

As one of the mandatory pre-licensing courses, this course provides a sound understanding of the specialized financing procedures that are used today in the real estate industry.

CODE 5601 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 5640 Internship: 6 semester hours.

Approved internship with a community development related organization.

CODE 5699 Independent Study: 6 semester hours.

Individual reading, research and/or field work in selected topics.

Construction Science Courses

CONS 3301 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 structural stability and integrity in construction projects.

Prerequisites: MATH 2318 or MATH 2183.

CONS 4341 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 4342 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, project delivery methods, mobilization, management, and close-out.

CONS 4344 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 4345 Facilities Management: 3 semester hours.

Focus on the various aspects of facilities and property management, including budgeting for operations and management, energy management, change management, design-build changes, in-house versus out-source maintenance, and contracting options.

CONS 4346 Construction Internship: 3 semester hours.

Approved internship in the construction industry.

CONS 4355 Construction Delivery Systems: 3 semester hours.

Methods and management techniques utilized in the building process, including procurement options, basis of reimbursement, management methods, and construction delivery methods.

CONS 4360 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; development of construction safety plan; safety on the job site; OSHA and related regulations.

CONS 4363 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 4374 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 modelling for construction optimization and sustainable building initiatives.

Prerequisites: ARCH 2223 or ARCH 1315.

CONS 4375 Scheduling and Mobilization: 3 semester hours.

Project scheduling procedures to include computer applications and resource loading and leveling; network generation and analysis; 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 4377 Construction Project Controls: 3 semester hours.

Introduction of students to construction-related financial documents; includes the schedule of values, labor and operations cost reports, construction budgets, schedule and budget integration, and progress analysis and forecast through earned value management.

CONS 4395 Mediation: 3 semester hours.

Construction conflict resolution with a focus on negotiation, mediation, arbitration alternatives to litigation will be addressed. The processes and skillsets professionals must possess to effectively engage in alternative dispute resolution strategies effectively will be covered through lectures, writing assignments, readings, and role-playing.

CONS 4397 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 the topic varies.

CONS 4399 Independent Study: 1-3 semester hour.

Individual reading, research and/or field work in selected topics.

CONS 4640 Construction Internship: 3-6 semester hour.

Approved internship in the building construction industry occurring in either the Fall Semester or Spring Semester.

Digital Media Arts Courses

DGMA 2317 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 1316 or ARTS 1153.

DGMA 2318 Fundamentals of Interactive Media: 3 semester hours.

An introduction to the principles of interactive design as it applies to user interface and user experience design, with an emphasis on web and mobile application development, technical proficiency, usability, and aesthetic appeal.

Prerequisites: DGMA 2317 or DGMA 2173.

DGMA 2399 Independent Study: 1-3 semester hour.

Individual studies in Digital Media Arts.

DGMA 3312 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 1311 or ARTS 1113) and (ARTS 1312 or ARTS 1123) and (ARTS 1316 or ARTS 1153) and (ARTS 2311 or ARTS 2353) and (ARTS 2336 or ARTS 2363).

Co-requisites: DGMA 3332, DGMA 3334.

DGMA 3313 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 3312 or DGMA 3123.

Co-requisites: DGMA 3333, DGMA 3335.

DGMA 3332 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 1311 or ARTS 1113) and (ARTS 1312 (may be taken concurrently) or ARTS 1123 (may be taken concurrently)) and (ARTS 1316 or ARTS 1153) and (ARTS 2311 or ARTS 2353) and (ARTS 2336 or ARTS 2363).

Co-requisites: DGMA 3312, DGMA 3334.

DGMA 3333 Typography II: 3 semester hours.

Continuation of Typography I incorporating more advanced and complex problems.

Prerequisites: DGMA 3323 or DGMA 3332.

Co-requisites: DGMA 3313, DGMA 3335.

DGMA 3334 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 1311 or ARTS 1113) and (ARTS 1312 or ARTS 1123) and (ARTS 1316 or ARTS 1153) and (ARTS 2311 or ARTS 2353) and (ARTS 2336 or ARTS 2363).

Co-requisites: DGMA 3312, DGMA 3332.

DGMA 3335 Interactive Media: 3 semester hours.

Continuation of DGMA 2318 with a focus on scripting desktop applications and visual communication strategies through the design and creation of 2D video games, user-interface, and animation.

Prerequisites: DGMA 2318 or DGMA 2183.

Co-requisites: DGMA 3313, DGMA 3333.

DGMA 3399 Independent Study: 1-3 semester hour.

Individual studies in Digital Media Arts.

DGMA 4314 Problems in Media Arts I: 3 semester hours.

Examination of visual communication through theoretical studies along with projects combining traditional mediums of art with new and emerging technology.

Prerequisites: DGMA 3313 or DGMA 3133.

Co-requisites: DGMA 4316, DGMA 4318.

DGMA 4315 Problems in Media Arts II: 3 semester hours.

Advance examination of visual communication through theoretical studies along with projects combining traditional mediums of art with new and emerging technology.

Prerequisites: DGMA 4314 or DGMA 4143.

Co-requisites: DGMA 4317, DGMA 4321.

DGMA 4316 Advanced Interactive Media: 3 semester hours.

Examination of methodologies essential to conceptual design and technical knowledge vital to interactive digital art, design, and visual programming through game engines.

Prerequisites: DGMA 3335 or DGMA 3353.

Co-requisites: DGMA 4314, DGMA 4318.

DGMA 4317 Social Media Design: 3 semester hours.

Continuation of DGMA 4316 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 4316 or DGMA 4163.

Co-requisites: DGMA 4315, DGMA 4321.

DGMA 4318 Motion Graphics: 3 semester hours.

Introduction to principles of animation and special effects through graphic storytelling, storyboarding, animatics, screen composition, and compositing.

Prerequisites: DGMA 3333.

Co-requisites: DGMA 4314, DGMA 4316.

DGMA 4321 Senior Studio Thesis: 3 semester hours.

Emphasis on preparing students for Senior Art Exhibition.

Prerequisites: DGMA 4318 or DGMA 4183.

Co-requisites: DGMA 4315, DGMA 4317.

DGMA 4323 Design Practice: 3 semester hours.

Examination of current design industry theories, programs, technologies and trends. Application of the principles of professional practice with an emphasis on integration of the creative thinking methodology with real-world design projects in a studio environment with selected client-partners and guest lecturers. Prerequisites: must be classified as a junior or senior.

DGMA 4399 Independent Study: 1-3 semester hour.

Individual studies in Digital Media Arts.

School of Architecture, Undergraduate

Purpose and Goals

The School of Architecture offers Bachelor of Science degrees in Architecture, Construction Science, and Digital Media Arts. The School combines teaching, research and service to proactively develop the discipline of creative and innovative problem solving. Students finish undergraduate programs ready to address the needs of our society, including improving the quality of the built environment. By offering a diverse curriculum, an accomplished faculty and a comprehensive studio and classroom environment, the School of Architecture prepares students for significant roles as practitioners, developers and leaders in architecture, construction, and design.

Architecture, BS

Bachelor of Science in Architecture

The Bachelor of Science degree in Architecture, (pre-professional program) provides the common foundation for studies in architecture. It is intended to deliver the basic knowledge 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

Complete Core Curriculum Listing at <https://catalog.pvamu.edu/universitycorecurriculum/>

Core Curriculum 42 Credit Hours

Communication		6
ENGL 1301	Freshman Composition I	
ENGL 2311	Technical and Business Writing	
Mathematics		3
MATH 1316	Trigonometry	
Life and Physical Sciences		6
PHSC 1315	Physical Science I	
PHSC 1317	Physical Science II	
Language, Philosophy, and Culture		3
ARCH 1301	Architectural History I	
Creative Arts		3
ARCH 1303	Architectural Design I	
American History		6
HIST 1301	United States History I	
HIST 1302	United States History II	
Government/Political Science		6
POSC 2305	American Government	
POSC 2306	Texas Government	
Social and Behavioral Sciences		3
ECON 1301	Fundamentals of Economics in a Global Society	
Component Area Option One		3
FINA 2313	Financial Planning from a Global Perspective	
Component Area Option Two		3
ARCH 1327	Multimedia Digital Application	
Major Requirements		
ARCH 1307	Visual Communications	3
ARCH 1626	Architectural Design II	6

ARCH 1315	Computer Aided Design	3
ARCH 1302	History of Architecture II	3
ARCH 2603	Architecture Design III	6
ARCH 2604	Architecture Design IV	6
ARCH 2312	Architectural Technology	3
ARCH 3625	Architecture Design V	6
ARCH 3626	Architecture Design VI	6
ARCH 3328	Materials and Methods	3
ARCH 3329	Structural Systems I	3
ARCH 3345	Environmental Systems	3
ARCH 3346	Sustainable Building	3
ARCH 4343	Structural Systems II	3
ARCH 4344	CAD Construction Documents and Codes	3
ARCH 4359	Professional Practice	3
Concentration (Select one from below)		27

Professional Track Concentration take the following courses:

ARCH 4645	Architecture Design VII
ARCH 4647	Architecture Design VIII
Architecture Electives (Take 6 hours of ARCH Electives)	
Non-Architecture Electives (Take 9 hours of electives in any area)	

Non-Professional Track Concentration

Electives (Take 27 hours of electives)	
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Total Hours**132****Bachelor of Science in Architecture, Non-Professional Track Degree Sequence**Core: <https://catalog.pvamu.edu/universitycorecurriculum/> (<https://catalog.pvamu.edu/universitycorecurriculum/>)**Freshman**

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
Communication Core		3 ARCH 1626		6 Government/Political Science Core	3
ENGL 1301		ARCH 1315		3 POSC 2305	
Mathematics Core		3 Communication Core		3	
MATH 1316		ENGL 2311			
Component Area Option Two Core		3 American History Core		3	
ARCH 1327		HIST 1301			
ARCH 1307		3			
Creative Arts Core		3			
ARCH 1303					
Total		15 Total		15 Total	3

Total Hours: 33**Sophomore**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Language, Philosophy, and Culture Core		3 ARCH 1302	3
ARCH 1301		ARCH 2604	6
ARCH 2603		6 Life and Physical Sciences Core	3
ARCH 2312		3 PHSC 1317	
Government/Political Science Core		3 American History Core	3
POSC 2306		HIST 1302	
Life and Physical Sciences Core		3 Component Area Option One Core	3

PHSC 1315	FINA 2313	
Total	18 Total	18

Total Hours: 36

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
ARCH 3625		6 ARCH 3626	6
ARCH 3345		3 ARCH 4359	3
ARCH 3329		3 ARCH 4343	3
Social and Behavioral Science Core ECON 1301		3 ARCH 3328 Concentration Track Requirement	3
Total		15 Total	18

Total Hours: 33

Senior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
ARCH 4344		3 Concentration Track Requirement	3
ARCH 3346		3 Concentration Track Requirement	3
Concentration Track Requirement		3 Concentration Track Requirement	3
Concentration Track Requirement		3 Concentration Track Requirement	3
Concentration Track Requirement		3	
Concentration Track Requirement		3	
Total		18 Total	12

Total Hours: 30

Name	Unit
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Total Semester Credit Hours: 132

Bachelor of Science in Architecture, Professional Track Degree Sequence

Core: <https://catalog.pvamu.edu/universitycorecurriculum/> (<https://catalog.pvamu.edu/academicprogramsanddegreeplans/schoolofarchitecture/undergrad/arch/%20https://catalog.pvamu.edu/universitycorecurriculum/>)

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
Communication Core ENGL 1301		3 ARCH 1626 Communication Core		6 Government/Political Science Core 3 POSC 2305	3
Mathematics Core MATH 1316		3 ENGL 2311 American History Core		3	
Component Area Option Two Core ARCH 1327		3 HIST 1301 ARCH 1315		3	
ARCH 1307		3			
Creative Arts Core ARCH 1303		3			
Total		15 Total		15 Total	3

Total Hours: 33

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
Language, Philosophy, and Culture Core ARCH 1301		3 ARCH 1302 ARCH 2604		3 Social and Political Sciences Core 6 ECON 1301	3

ARCH 2603	6 Life and Physical Sciences Core	3
ARCH 2312	3 PHSC 1317	
Government/Political Science Core	3 American History Core	3
POSC 2306	HIST 1302	
Life and Physical Sciences Core	3 Component Area Option One Core	3
PHSC 1315	FINA 2313	
Total	18 Total	18 Total
		3

Total Hours: 39

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
ARCH 3625		6 ARCH 3626	6
ARCH 3345		3 ARCH 4359	3
ARCH 3329		3 ARCH 4343	3
Elective #1		3 ARCH 3328	3
		Elective #2	3
Total		15 Total	18

Total Hours: 33

Senior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
ARCH 4344		3 ARCH 4647	6
ARCH 3346		3 Elective #4	3
ARCH 4645		6 Elective #5	3
Elective #3		3	
Total		15 Total	12

Total Hours: 27

Name	Unit
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Total Semester Credit Hours: 132

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

BS Architecture

Degree Skills

1. Development of skills needed to create design concepts that solve the program of needs from a client
2. Understanding of theories, concepts, principles and design fundamentals in order to create solutions through two- and three-dimensional design
3. Development of knowledge related to materials and systems involved in design and construction including structures, building enclosures, and mechanical, electrical and plumbing

Concentration Skills

1. Development of composition, writing and presentation skills needed for professional employment
2. Ability to present before the public and clients

Co-curricular and Extracurricular Skills

1. Appropriate use of computer programs to design and to present concepts for approval
2. Expanded use of systems such as Building Information Modeling (BIM) to document design in technical drawings for bidding and construction

Construction Science, BS

Bachelor of Science in Construction Science

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 a 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.

Degree Program Requirements

Complete Core Curriculum Listing at <https://catalog.pvamu.edu/universitycorecurriculum/>

Core Curriculum 42 Credit Hours

Communication		6
ENGL 1301	Freshman Composition I	
ENGL 2311	Technical and Business Writing	
Mathematics		3
MATH 1314	College Algebra	
Life and Physical Sciences		6
PHSC 1315	Physical Science I	
PHSC 1317	Physical Science II	
Language, Philosophy, and Culture		3
ARCH 1302	History of Architecture II	
Creative Arts		3
ARCH 1303	Architectural Design I	
American History		6
HIST 1301	United States History I	
HIST 1302	United States History II	
Government/Political Science		6
POSC 2305	American Government	
POSC 2306	Texas Government	
Social and Behavioral Sciences (Select One)		3
Component Area Option One		3
ECON 1301	Fundamentals of Economics in a Global Society	
Component Area Option Two		3
ARCH 1327	Multimedia Digital Application	
Major Requirements		
CONS 3301	Construction Estimating	3
CONS 3353	Managing Construction Operations	3
CONS 3363	Surveying and Soils	3
CONS 4346	Construction Internship	3
CONS 4346	Construction Internship	3
CONS 4360	Construction Labor and Safety	3
CONS 4363	Construction Law and Ethics	3
ARCH 4373	Advanced Computer Aided Design	3
or ARCH 4375	Introduction to Geographical Information Systems	
CONS 4375	Scheduling and Mobilization	3
CONS 4377	Construction Project Controls	3
Select one of the following (Students should enroll in one of the following courses that best fits their career goals.)		
CONS 4341	Residential Construction	3

CONS 4342	Commercial Construction	
CONS 4344	Highway/Heavy Construction	
CONS 4345	Facilities Management	
Architecture Requirements:		
ARCH 1307	Visual Communications	3
ARCH 1315	Computer Aided Design	3
ARCH 2312	Architectural Technology	3
ARCH 3328	Materials and Methods	3
ARCH 3329	Structural Systems I	3
ARCH 3345	Environmental Systems	3
ARCH 3346	Sustainable Building	3
ARCH 4343	Structural Systems II	3
ARCH 4344	CAD Construction Documents and Codes	3
ARCH 4374	Building Information Modeling	3
or CONS 4374	Building Information Modeling	
Other Requirements:		
ACCT 2301	Principles of Accounting	3
BLAW 2301	Legal Environment of Business	3
MGMT 3310	Principles of Management	3
MRKT 3310	Principles of Marketing	3
MATH 2318	Informal Geometry	3
Total Hours		120

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.

CONS 3301	Construction Estimating	3
CONS 3353	Managing Construction Operations	3
CONS 3363	Surveying and Soils	3
CONS 4346	Construction Internship	3
CONS 4342	Commercial Construction	3
CONS 4360	Construction Labor and Safety	3
CONS 4363	Construction Law and Ethics	3
CONS 4375	Scheduling and Mobilization	3
CONS 4377	Construction Project Controls	3
MATH 1342	Elementary Statistics	3
Total Hours		30

Bachelor of Science in Architecture, Construction Science Degree Sequence

Core: <https://catalog.pvamu.edu/universitycorecurriculum/> (<https://catalog.pvamu.edu/universitycorecurriculum/>)

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
ARCH 1307		3 Component Area Option One Core	3
Creative Arts Core		3 ECON 1301	
ARCH 1303		Communication Core	3
Component Area Option Two Core		3 ENGL 2311	

ARCH 1327	Government/Political Science Core	3
Communication Core	3 POSC 2305	
ENGL 1301	ARCH 1315	3
American History Core	3 Mathematics Core	3
HIST 1301	MATH 1314	
Total	15 Total	15

Total Hours: 30

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
ACCT 2301		3 ARCH 3328		3 CONS 4346	3
Life and Physical Sciences Core		3 Social and Behavioral Science Core		3	
PHSC 1315		Life and Physical Sciences Core		3	
ARCH 2312		3 PHSC 1317			
American History Core		3 BLAW 2301		3	
HIST 1302		Language, Philosophy, and Culture Core		3	
Government/Political Science Core		3 ARCH 1302			
POSC 2306					
Total		15 Total		15 Total	3

Total Hours: 33

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
CONS 3301		3 ARCH 4344		3 CONS 4346	3
CONS 4355		3 ARCH 3346		3	
CONS 4360		3 ARCH 4343		3	
ARCH 3329		3 MATH 2318		3	
ARCH 3345		3			
Total		15 Total		12 Total	3

Total Hours: 30

Senior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
CONS Capstone Course		3 CONS 4363	3
CONS 3353		3 CONS 4377	3
MGMT 3310		3 MRKT 3310	3
CONS 4375		3 CONS 3363	3
		CONS 4374	3
Total		12 Total	15

Total Hours: 27

Name	Unit
Total Semester Credit Hours: 120	

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

BS Construction Science

Degree Skills

1. Creating, updating and managing daily, weekly and monthly schedules on construction projects, including computer applications and resource planning
2. Understanding the components of Preliminary Estimates, Final Estimates and Guaranteed Maximum Price (GMP) and the fundamentals of building costs to include materials, construction feasibility, cost cycles, inflation, operational costs, and life-cycle costs
3. Understanding the principles of surveying and the instruments used
4. Complete computations for topographical surveys, field dimensions and placement of building improvements
5. Understanding operational conditions for projects including selecting, estimating, bidding, scheduling, subcontracting, cost tracking, documentation, bonds, insurance, payments and close out

Concentration Skills

1. Computer skills including knowledge of Building Information Modeling (BIM) used to manage the work of the construction project team
2. Understanding the work needed to initiate the work including equipment, construction methods, and office and field planning

Co-curricular and Extracurricular Skills

1. Understanding of federal and state labor and safety regulations used in the construction industry; completion of CPR and OSHA 30-hour training to obtain certification
2. Understanding the purchasing and delivery of construction materials for the project. Use of plans and specifications to complete orders and execute procurement contracts

Digital Media Arts, BS

Bachelor of Science in Digital Media Arts

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.

Students can apply to the University using the State of Texas Common Application for Freshman Admission available at www.pvamu.edu. Admission information can be found by visiting <https://www.pvamu.edu/admissions/how-to-apply-for-admission/>.

Degree and Courses

The Digital Media Arts 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 thinking 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/concept development.

Career Opportunities

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.

Professional designers and media artists 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, design entrepreneur, front-end game development, and animation. Graduates are working in a variety of fields in the industry and many have chosen to further their education by pursuing advanced degrees in design, animation, and game development.

Degree Program Requirements

Complete Core Curriculum Listing at <https://catalog.pvamu.edu/universitycorecurriculum/>

Core Curriculum 42 Credit Hours

Communication (Select Two)	6
Mathematics (Select One)	3
Life and Physical Sciences (Select Two)	6
Language, Philosophy, and Culture	3
ARTS 1303 Art History I (Prehistoric to the 14th Century)	
Creative Arts	3
ARTS 2328 African American Art	
American History (Select Two)	6
Government/Political Science (Select Two)	6
Social and Behavioral Science (Select One)	3
Component Area Option One (Select One)	3
Component Area Option Two (Select One)	3

Major Requirements

ARTS 1311 Design I (2-Dimensional)	3
ARTS 1312 Design II	3
ARTS 1315 Creative Thinking	3
ARTS 1316 Drawing I	3
ARTS 1304 Art History II (14th century to the present)	3
ARTS 2331 Graphic Design History	3
ARTS 2311 Design III	3
ARTS 2336 Sign + Symbol	3
DGMA 3312 Layout I	3
DGMA 3313 Layout II	3
DGMA 3332 Typography I	3
DGMA 3333 Typography II	3
DGMA 3334 Branding	3
DGMA 3335 Interactive Media	3
DGMA 4314 Problems in Media Arts I	3
DGMA 4315 Problems in Media Arts II	3
DGMA 4316 Advanced Interactive Media	3
DGMA 4317 Social Media Design	3
DGMA 4318 Motion Graphics	3
DGMA 4321 Senior Studio Thesis	3

Prescribed Electives

ARTS 3319 Printmaking	3
ARTS 4310 Creative Photography I	3
DGMA 2317 Fundamentals of Digital Imaging	3
DGMA 2318 Fundamentals of Interactive Media	3

Free Arts Electives (Select Two)

ARTS 2316 Painting	
ARTS 3314 Sculpture I	
ARTS 3317 Watercolor	
ARTS 3351 Crafts Design	
ARTS 4313 Printmaking II	
ARTS 4321 Book Arts	
DGMA 4323 Design Practice	

Total Hours

120

Bachelor of Science in Architecture, Digital Media Arts Degree Sequence

Core: <https://catalog.pvamu.edu/universitycorecurriculum/> (<https://catalog.pvamu.edu/universitycorecurriculum/>)

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
ARTS 1311		3 ARTS 1312	3
ARTS 1316		3 ARTS 1315	3
Language, Philosophy, and Culture Core		3 ARTS 1304	3
ARTS 1303		Communication Core	3
Communication Core		3 Social and Behavioral Science Core	3
Mathematics Core		3	
Total		15 Total	15

Total Hours: 30

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours
ARTS 2311		3 ARTS 2336	3
DGMA 2317		3 DGMA 2318	3
Creative Arts Core		3 ARTS 2331	3
ARTS 2328		Life and Physical Sciences Core	3
Life and Physical Sciences Core		3 American History Core	3
American History Core		3	
Total		15 Total	15

Total Hours: 30

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
DGMA 3312		3 DGMA 3313	3
DGMA 3332		3 DGMA 3333	3
DGMA 3334		3 DGMA 3335	3
Government/Political Science Core		3 Government/Political Science Core	3
ARTS 3319		3 ARTS 4310	3
Total		15 Total	15

Total Hours: 30

Senior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
DGMA 4314		3 DGMA 4315	3
DGMA 4316		3 DGMA 4317	3
DGMA 4318		3 DGMA 4321	3
Component Area Option One Core		3 Component Area Option Two Core	3
Free Art Elective I		3 Free Art Elective II	3
Total		15 Total	15

Total Hours: 30

Name	Unit
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Total Semester Credit Hours: 120

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

BS Digital Media

Degree Skills

1. Effective communication of the intent, process, and context of design work
2. Ability to work in a collaborative environment in the design industry
3. Develop creative visual responses to design problems, projects using a variation of the Design Thinking Process

Co-curricular and Extracurricular Skills

1. Demonstrate a proficiency in the use of industry-standard technology
2. Facilitate client meetings, focus groups, and other methods of gathering research for development of design work
3. Understand process and workflow in a creative environment

School of Architecture, Graduate

Master of Architecture with a Major in Architecture

The Master of Architecture is a NAAB Accredited 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 37 credit hours.

Admission Requirements

All students admitted to the Master of Architecture program must meet the admission requirements of Graduate Studies at Prairie View A&M University. In addition, for students matriculating from a four-year, pre-professional program 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 + 37 graduate credit hours).

Next accreditation visit: 2026

Professional Degree Program Requirements

The degree requires a minimum of 37 semester credit hours. The core of the program consists of 27 credit hours of courses required of all students. The remaining ten credit hours of electives may be selected from courses in architecture, community development, or other graduate degree programs on campus.

Major Requirements

ARCH 5650	Internship	6
ARCH 5656	Architecture Design IX	6
ARCH 5351	Research Seminar	3
ARCH 5957	Comprehensive Project Studio	9
ARCH 5348	Structural Systems III	3
Electives		10
Total Hours		37

Students entering the graduate program with a prior non-professional degree (e.g., 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 78 semester credit hours of undergraduate and graduate equivalent courses. These hours include a minimum of four design studios that must be passed with a final grade of B or better. With careful scheduling, this degree track 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 in Education, Engineering, Business, 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 Graduate Studies 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. An undergraduate GPA 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.

Major Requirements

18

Select courses from the following:

CODE 5301	Introduction to Community Development Planning and Theory
CODE 5305	Community Development Planning Studio
CODE 5307	Community Development Financing
CODE 5308	Community Analysis, Demography and GIS
CODE 5321	Negotiation, Mediation and Facilitation

Electives

18

Select classes from the following:

CODE 5310	Cultural Heritage Preservation
CODE 5312	Historic Preservation
CODE 5320	Introduction to Community Leadership ²
CODE 5330	Community Political Structure
CODE 5331	Community Growth Management and Leadership
CODE 5332	Community Analysis
CODE 5336	Community Physical Structure
CODE 5351	Grant Development
CODE 5352	Campaigns and Gifts
CODE 5354	Research for Capital and Grant Development
CODE 5360	Land Development and Planning in Declining Communities ²
CODE 5361	Land Development Law and Use Strategies
CODE 5375	International Community Development Policies and Practices
CODE 5380	Principles of Real Estate I
CODE 5381	Principle of Real Estate II

CODE 5382	Law of Agency	
CODE 5383	Law of Contract	
CODE 5640	Internship	
Total Hours		36

¹ Students interested in pursuing an internship can take CODE 5640 in place of CODE 5334 and CODE 5360 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.

Architecture, MARCH

Master of Architecture, Professional Degree Program Requirements

The degree requires a minimum of 37 semester credit hours. The core of the program consists of 27 credit hours of courses required of all students. The remaining ten credit hours of electives may be selected from courses in architecture, community development, or other graduate degree programs on campus.

Major Requirements

ARCH 5348	Structural Systems III	3
ARCH 5351	Research Seminar	3
ARCH 5650	Internship	6
ARCH 5656	Architecture Design IX	6
ARCH 5957	Comprehensive Project Studio	9
Electives		10
Total Hours		37

There are three track options available for students wishing to complete the professional Master of Architecture (M. Arch.) degree.

Track I: For students matriculating from Bachelor of Science in Architecture degree at PVAMU School of Architecture. This options requires 37 semester credit hours of study at the graduate level. A list of courses for students enrolled in Track I is listed in Table 1.

Table 1

ARCH 5348	Structural Systems III	3
ARCH 5351	Research Seminar	3
ARCH 5650	Internship	6
ARCH 5656	Architecture Design IX	6
ARCH 5957	Comprehensive Project Studio	9
Electives		10
Total Hours		37

Track II: For students matriculating from a four-year, non-professional degree in architecture (e.g. BS in Architecture, Bachelor of Environmental Design, Bachelor of Art in Architecture, B.S. in Environmental Design, or similar degree). This option requires degree evaluation by the Academic Advisor and Program Director. Depending on the extent and level of the courses completed in the pre-professional degree, a degree plan will be identified to include between 48 and 60 semester credit hours of undergraduate and graduate-level courses. Courses for students enrolled in Track II are listed in Table 2.

Please note, any undergraduate or graduate leveling courses not included in the 37 SCH Master of Architecture may not qualify for federal aid under the Course Program of Study (CPoS) requirements.

Table 2

ARCH 3345	Environmental Systems	3
ARCH 3346	Sustainable Building	3
ARCH 4344	CAD Construction Documents and Codes	3
ARCH 4359	Professional Practice	3
ARCH 5348	Structural Systems III	3
ARCH 5351	Research Seminar	3
ARCH 5650	Internship	6

ARCH 5656	Architecture Design IX	6
ARCH 5698	Special Projects (For Design VII)	6
ARCH 5698	Special Projects (For Design VIII)	6
ARCH 5957	Comprehensive Project Studio	9
Electives		10
Total Hours		61

Track III: For students entering with a bachelor's degree in a field other than architecture. This option requires 103–115 semester credit hours of study involving a combination of undergraduate and graduate-level courses after a degree evaluation by the Academic Advisor and Program Director. Courses for students enrolled in Track III are listed in Table 3.

Please note, any undergraduate or graduate leveling courses not included in the 37 SCH Master of Architecture may not qualify for federal aid under the Course Program of Study (CPoS) requirements.

Table 3

ARCH 1302	History of Architecture II	3
ARCH 1315	Computer Aided Design	3
ARCH 2312	Architectural Technology	3
ARCH 3328	Materials and Methods	3
ARCH 3329	Structural Systems I	3
ARCH 3345	Environmental Systems	3
ARCH 3346	Sustainable Building	3
ARCH 4343	Structural Systems II	3
ARCH 4344	CAD Construction Documents and Codes	3
ARCH 4359	Professional Practice	3
ARCH 5348	Structural Systems III	3
ARCH 5351	Research Seminar	3
ARCH 5650	Internship	6
ARCH 5656	Architecture Design IX	6
ARCH 5698	Special Projects (For Design I)	6
ARCH 5698	Special Projects (For Design II)	6
ARCH 5698	Special Projects (For Design III)	6
ARCH 5698	Special Projects (For Design IV)	6
ARCH 5698	Special Projects (For Design V)	6
ARCH 5698	Special Projects (For Design VI)	6
ARCH 5698	Special Projects (For Design VII)	6
ARCH 5698	Special Projects (For Design VIII)	6
ARCH 5957	Comprehensive Project Studio	9
Electives		10
Total Hours		115

Master of Architecture, Degree Sequence

Track I

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
ARCH 5348		3 ARCH 5957		9 ARCH 5650	6
ARCH 5351		3 ARCH 5159		1 Elective II	3
ARCH 5656		6 Elective I		3 Elective III	3
Total		12 Total		13 Total	12

Total Hours: 37

Name	Unit
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Total Semester Credit Hours: 37

Track II

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
ARCH 3345		3 ARCH 3346		3 ARCH 5650	6
ARCH 4344		3 ARCH 4359		3 Elective	3
ARCH 5698		6 ARCH 5698		6 Elective	3
(for Design VII)		(for Design VIII)			
Total		12 Total		12 Total	12

Second Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
ARCH 5656		6 ARCH 5957		9	
ARCH 5348		3 Elective		1	
ARCH 5351		3 Elective		3	
Total		12 Total		13	

Total Hours: 61

Name	Unit
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Total Semester Credit Hours: 61

Track III

First Year

Summer	Hours
ARCH 5698	6
(for Design I)	
ARCH 1315	3
Total	9

Total Hours: 9

Second Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
ARCH 2312		3 ARCH 1302		3 ARCH 5698	6
ARCH 3329		3 ARCH 3328		3 (for Design IV)	
ARCH 5698		6 ARCH 4343		3	
(for Design II)		ARCH 5698		6	
		(for Design III)			
Total		12 Total		15 Total	6

Total Hours: 33

Third Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
ARCH 3345		3 ARCH 3346		3 Elective	3
ARCH 4344		3 ARCH 4359		3 ARCH 5698	6
ARCH 5698		6 ARCH 5698		6 (for Design VII)	
(for Design V)		(for Design VI)			
Total		12 Total		12 Total	9

Total Hours: 33

Fourth Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
Elective		3 Elective		1 ARCH 5351	3
ARCH 5348		3 Elective		3 ARCH 5656	6
ARCH 5698		6 ARCH 5650		6	
(for Design VIII)					
Total		12 Total		10 Total	9

Total Hours: 31**Fifth Year**

Fall - Semester 1	Hours
ARCH 5957	9
Total	9

Total Hours: 9

Name	Unit
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Total Semester Credit Hours: 115

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

MS Architecture**Degree Skills**

1. Ability to use precedents to address site, urban and historical issues
2. Analysis of and ability to respond to site and topographic elements, climate, population and needs to design projects
3. Ability to conduct in-depth research related to solving design issues; raise clear and precise questions to collect information related to a project commission/assignment; gather, analyze, record and compare information in order to make a decision or offer a recommendation; establish problem identification, setting evaluation criteria, assessing the potential solutions and composing a response
4. Ability to create clear drawings, construction documents, specifications and physical models illustrating the proper assembly of materials, systems and components of the building project

Concentration Skills

1. Understand historical contexts of architecture and the fundamental design principles needed to reach
2. Ability to write and speak effectively to peers and the public, combined with the use of appropriate media
3. Use appropriate technologies to communication design concepts and technical information, and to collaborate with other disciplines (structural, mechanical, electrical and plumbing) to solve problems

Co-curricular and Extracurricular Skills

1. Understand the fundamentals of an ethical practice that addresses the requirements of architects to protect the health, safety and welfare of the public
2. Understand the architect's responsibility with regards to building codes and other legal considerations. Understanding the AIA Code of Ethics

Community Development, MCD**Master of Community Development, 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. Only 6 credit hours of alternative graduate courses may be selected from offerings of other degree programs on campus, with departmental approval.

Major Requirements**18**

Select courses from the following:

CODE 5301 Introduction to Community Development

CODE 5305	Community Dev Studio
CODE 5307	Community Development Financing
CODE 5308	Demography and GIS
CODE 5321	Negotiation, Mediation and Facilitation
CODE 5334	Community Research ¹
CODE 5360	Land Development and Planning in Declining Communities ¹

Electives **18**

Select classes from the following:

CODE 5310	Cultural Heritage Preservation
CODE 5312	Historic Preservation
CODE 5320	Introduction to Community Leadership ²
CODE 5330	Community Political Structure
CODE 5331	Community Management and Leadership
CODE 5332	Community Analysis
CODE 5336	Community Physical Structure
CODE 5351	Grant Development
CODE 5352	Campaigns and Gifts
CODE 5354	Research for Capital and Grant Development
CODE 5360	Land Development and Planning in Declining Communities ²
CODE 5361	Land Development and Use Control Strategies
CODE 5375	International Community Development Policies and Practices
CODE 5380	Principles of Real Estate I
CODE 5381	Principle of Real Estate II
CODE 5382	Law of Agency
CODE 5383	Law of Contract
CODE 5640	Internship
CODE 5384	Promulgated Contract Forms
CODE 5385	Real Estate Finance

Total Hours **36**

¹ Students interested in pursuing an internship can take CODE 5640 in place of CODE 5334 and CODE 5360 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.

Master of Community Development, Degree Sequence

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
CODE 5301		3 CODE 5305		3 Elective IV	3
CODE 5308		3 CODE 5321		3 Elective V	3
Elective I		3 CODE 5334		3	
Elective II		3 Elective III		3	
Total		12 Total		12 Total	6

Total Hours: 30

Second Year

Fall - Semester 1	Hours
CODE 5307	3
Elective IV	3
Total	6

Total Hours: 6

Name	Unit
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Total Semester Credit Hours: 36

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

MCD Community Development

Degree Skills

1. Strategic development and mass communication skills (industry and community)
2. Project management in the areas of real estate, finance and community projects
3. Understanding of community engagement research principles

Concentration Skills

1. Ability to conduct feasibility studies
2. Applied research skills
3. Grant writing and management

Co-curricular and Extracurricular Skills

1. Community engagement
2. Community projects
3. Data-driven outcomes

Whitlowe R. Green College of Education

Historical Context

Prairie View A&M University (PVAMU) has a rich, historic legacy of preparing educators. The Sixteenth Texas Legislature on April 19, 1879, established "Prairie View State Normal School" in Waller County for the Training of Colored Teachers. For one hundred and forty-one years, the institution has produced educators and health professionals who have facilitated the acquisition of knowledge and skills to improve the lives of people throughout the Gulf Coast region, the state, and the nation.

Mission

The Whitlowe R. Green College of Education prepares 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 populations.

Conceptual Framework

The conceptual framework Educators as Facilitators of Learning for Diverse Populations (E-FOLD-P), supports the major goals of educator preparation in the Whitlowe R. Green College of Education. E-FOLD-P guides the design and implementation of programs, activities, and experiences and represents a commitment by the faculty 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 Whitlowe R. Green College of Education's dedication to the preparation of candidates who are technologically literate themselves and who can integrate technology into the learning environments of their students. Moreover, the Whitlowe R. Green College of Education is committed to promoting equity in educational attainment and health outcomes for the improvement of the health, well-being, and education of diverse citizens.

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

Program	Degree Offered
Curriculum and Instruction	MAED, MED, MSED
Curriculum and Instruction-Reading Education	MED, MSED
Counseling	MA
Educational Administration	MED, MSED
Educational Leadership	PhD
Human Sciences	MS
Special Education	MED, MSED
Teacher Education	BS

Becoming a Classroom Teacher in Texas

There are five overall requirements to becoming a certified teacher in the state of Texas.

1. Obtain a Bachelor's Degree. You must earn a bachelor's degree from an accredited college or university. The Texas Administrative Code (TAC) requires that candidates completing a Texas program must have a degree from a university that is accredited by an accrediting agency recognized by the Texas Higher Education Coordinating Board.
2. Complete an Educator Preparation Program. You must complete all requirements of an approved Educator Preparation Program. The Whitlowe R. Green College of Education (WRGCOE) is an accredited university-based Educator Preparation Program. If you already hold a degree, you may contact our *Alternative Teacher Certification Program*.
3. Pass Certification Exams. You must receive approval, and take and pass the appropriate teacher certification exams.
4. Submit a State Application. You must apply to be certified after all requirements are met. Do not apply until you have been verified as eligible by the Office of Student Services and Certification.
5. Complete Fingerprinting. All first-time applicants must be fingerprinted as part of a national criminal background check.

Criminal Background Checks

The State of Texas, the Texas Higher Education Coordinating Board (THECB), the Texas Education Agency (TEA), and the State Board for Educator Certification (SBEC) require that an educator preparation program inform all certification program applicants and candidates about the State's rules on criminal background checks from the Texas Occupations Code Chapter 53, the Texas Education Code Chapter 22.0831 and the Texas Administrative Code, Part VII, Chapter §227.1, General Provisions Subchapter B.

Educator preparation programs should inform all applicants that:

1. Pursuant to the Texas Education Code (TEC), §22.083, candidates must undergo a criminal history background check prior to employment as an educator; and
2. Pursuant to the TEC, §22.0835, candidates must undergo a criminal history background check prior to clinical teaching.

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 plus 12-15 SCHs in content areas if applicable with a minimum cumulative GPA of 2.75;
9. Documentation of a criminal background check;
10. Signed Educator Code of Ethics;
11. A grade of C or above in ENGL 1123 or ENGL 1133;
12. A grade of C or above in MATH 1113; and
13. 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.

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 3.00 grade point average. Only grades of "B" or above will be accepted.
4. A passing score of 290 or above on the Content Examination in Certify Teacher; or a passing score on the official TExES Content examination; or an official TExES registration examination ticket.
5. Documentation of attendance at all applicable review sessions, or documentation of the TExES score report.
6. Completion of the criminal background check authorization for the school district(s) requested for clinical teaching placement.
7. Completion of online graduation application; a copy of the confirmation page signed by an academic advisor.
8. Copy of four (4) validation forms and field logs documenting completion of 60 hours of field experiences.
9. Completed degree plan signed by academic advisor.
10. Copy of TB test results, completed within one (1) year.
11. Professional resume.
12. Banner registration form documenting clinical teaching course number(s), signed by an academic advisor.
13. 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 packets for clinical teaching can be obtained through the Department of Curriculum and Instruction webpage and should be completed with the advisor prior to the start of the clinical teaching semester. 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 their needs. Clinical teachers will not be placed outside the sixty-mile radius. The candidate is cautioned not to contact a school district to gain placement for clinical teaching. The placement of candidates for this experience is the Director of Clinical Teaching and Field Experiences' responsibility. There is an agreement between the school districts and the WRGCOE that only the Director will make such contacts.

Each clinical teacher candidate will have a minimum of three observations within the public-school setting by the assigned university field supervisor. Cooperative teachers will be asked to complete an evaluation. Clinical teachers will teach in as many different situations lead by the cooperative teacher during a minimum of 70 full school days of clinical teaching. *Before entering the public-school setting, each candidate must expect a background check to be performed by the requested school district per Texas Education Code (TEC) § 22.0835.*

In case of a state of emergency, Texas Education Agency (TEA) will notify all Educator Preparation Programs (EPP) in Texas, including Prairie View A&M University, if a waiver is warranted for less than 70 full school days of practicum within the public-school setting. Always attend to all changes presented by TEA as related to EPP. Prairie View A&M University will adhere to any updates noted by TEA that may not have been updated in the university catalog.

Exit Policy for Dismissal of Teacher Education Candidates

It is a paramount goal of the Prairie View A&M University Educator Preparation Program (PVAMU EPP) to graduate and recommend for certification candidates who will be successful educators throughout the state of Texas. Occasionally, there are circumstances that warrant the dismissal of a candidate. When such action is deemed necessary, there are specific reasons and procedures that should be taken into consideration by all parties involved.

Per Texas Administrative Code 19 TAC 228.20(h), the reasons for dismissal from an EPP are noted below.

- Undergraduate GPA falls below 2.75.
- Graduate program GPA falls below 3.00.
- Mutual consent and agreement for dismissal by the public school partner Administrator and University Supervisor for reasons of illness, injury or other unforeseen personal circumstances.
- Violation of the Texas Professional Code (Code of Ethics) or Texas Education Code regulations.

- Failure by the student to establish and maintain a satisfactory performance level in classroom instruction and management.
- Failure by the PVAMU EPP candidate to abide by the policies of the PVAMU EPP, and/or public school partner, and/or school district.
- Unprofessional conduct towards school personnel, or students.
- Failure to address the requirements of a growth plan and show consistent progress.
- Non-renewal of teaching contract (for interns).
- Failure to pay fees in a timely manner.

Students who choose to withdraw from the PVAMU Educator Preparation Program (EPP) *prior to graduation or certification* will be required to complete a written statement via academic advisor or program director. The document outlines reasons for withdrawal and understanding of graduation without TEA Certification. Re-entry into the program will be considered on an individual basis.

Paid fees will not be refunded in the event that a participant is withdrawn or dismissed from the program.

If the candidate does not agree with the decision of program dismissal, she/he may appeal via the *PVAMU EPP Complaint Process*. Information about this process can be found online at <https://www.pvamu.edu/education/forms/>. There is a timeline for submitting complaints.

EPP Complaint Process

As defined by TAC 228.70, a candidate or former candidate in an Educator Preparation Program (EPP), an applicant for candidacy in an EPP, an employee or former employee of an EPP, a cooperating teacher, a mentor, a Director of Educator Preparation Services in a school district, charter school, or private school may submit, in accordance with subsection (c)(1) of this section, a complaint about an EPP for investigation and resolution. Any of the above aforementioned, hereinafter referred to as the complainant, who have a complaint may seek resolution without fear of retaliation.

If the complainant is a current Prairie View A&M University student, he or she must follow the university's Student Grievances and Appeals procedures. This information can be found at <https://catalog.pvamu.edu/generalacademicinformation/undergraduate/#academicappealstext>.

All other complainants, please follow the guidelines listed below.

A formal public complaint is a signed written statement of complaints or concerns regarding the customer service provided by employees of the Whitlow R. Green College of Education-Educator Preparation Programs. The directions and form are available online at: <https://www.pvamu.edu/education/wp-content/uploads/sites/29/EPP-Complaint-Process-2019.pdf>.

TEXES Requirements

Texas law requires that educators pass appropriate tests to become certified. The appropriate examination(s) required for certification are specified in the Texas Administrative Code, §230.21 (e).

Further information about current, past and future tests may be found at the link below:

<https://tea.texas.gov/sites/default/files/Required%20and%20Replacement%20Test%20Chart%202020-21.pdf>

Teacher Candidates are allowed to take the appropriate certification tests (1) when deemed ready by the candidate's program, or (2) upon successful completion of the candidate'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.

Degree for Teacher Educators

In 2019, the 86th Legislative Session passed Texas House Bill 3217, which granted authority to Texas colleges and universities to discontinue the Interdisciplinary Studies degree and award the Bachelor of Science (BS) in Teacher Education to teacher education candidates who complete all EPP program requirements.

TAC Degree and General Requirements for Teacher Certification

§230.11. General Requirements

- (a) The only credits and degrees acceptable for certification of educators are those earned from and conferred by accredited institutions of higher education. All credit hour requirements for certification are semester credit hours or their equivalent.
- (b) An applicant for a Texas educator certificate must:
 - (1) be at least 18 years of age;
 - (2) submit to the criminal history review required by the Texas Education Code (TEC) §22.0831, not be disqualified by the TEC, §21.058, §21.060, or other Texas statute, and not be subject to administrative denial pursuant to §249.12 of this title (relating to Administrative Denial; Appeal) or a pending proceeding under Chapter 249 of this title (relating to Disciplinary Proceedings, Sanctions, and Contested Cases);

- (3) not be disqualified by federal law;
- (4) be willing to support and defend the constitutions of the United States and Texas; and
- (5) be able to communicate, listen, read, write, and comprehend the English language sufficiently to use it easily and readily in daily communication and teaching.

Standard Teacher Class Certifications

The following standard teacher class certification options are available for the Bachelor of Science (BS) degree in Teacher Education:

- CORE Subjects EC-6
- CORE Subjects 4-8
- English Language Arts and Reading 4-8
- Mathematics 4-8
- Science 4-8
- Social Studies 4-8
- Special Education EC-12

Student Teaching is required for a Bachelor of Science degree in Teacher Education.

The following certifications require a major in a specific academic area as indicated by the certification titles listed below:

- English Language Arts and Reading 7-12
- Health EC-12
- Life Sciences 7-12
- Mathematics 7-12
- Music EC-12
- Physical Education EC-12
- Science 7-12
- Speech 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)

The Alternative Teacher Certification Program (ATCP) at PVAMU is a state-approved comprehensive educator preparation program (EPP) that trains individuals for Texas standard certification in elementary and secondary education. The ATCP provides the training necessary for talented individuals that have a passion for teaching but do not have experience in a college-level teacher training program. The program explores methods, principles, theorists, current trends, legislation, and instructional strategies that apply to successful teaching practice in EC-12. All educator candidates must follow all PVAMU Policies & Procedures, the Student Code of Conduct, the Student Handbook, the Educators' Code of Ethics, and the ATCP Candidate Handbook.

Areas of Certification

- Art EC-12
- Health EC-12
- Music EC-12
- Physical Education EC-12
- Special Education EC-12
- Technology Education EC-12
- English Language Arts and Reading 7-12
- Life Science 7-12
- Science 7-12
- Mathematics 7-12
- Technology Education 6-12
- English Language Arts and Reading 4-8
- Mathematics/Science 4-8
- Mathematics 4-8

- Science 4-8
- Social Studies 4-8

Applicants must be admitted to Graduate Studies prior to applying for ATCP. It is recommended that applicants take the Texas Pre-Admission Content Exam (TX PACT) exam prior to admission. The TX PACT exam is a content exam. The exam is designed to confirm that a candidate has enough content knowledge to teach their desired certification subject successfully. Candidates do not need testing approval to take the TX PACT. Not all applicants are required to take the TX PACT. For more information, go to the Texas Educator Certification Examination Program website. All certification routes are available for entrance on a semester basis. Applications are considered in the spring, summer, and fall semesters. These certification options are administered by the Director of the Alternative Teacher Certification Program (ATCP).

Art, Health, Music, Physical Education, Technology, ELAR, Science, Math, Social Studies Certification

Admission requirements include a baccalaureate degree (with a minimum grade point average of 2.50) from an accredited institution, a minimum of 12 semester credit hours in the subject-specific content area for the certification sought, unless certification sought is for mathematics or science at or above Grade Seven (7); or fifteen (15) semester credit hours in the subject-specific content area for the certification sought if the certification sought is for mathematics or science at or above Grade Seven (7) 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 (see ATCP Director relating to Exemptions, Exceptions, and Waivers). Those enrolled in the ATCP are required to complete six (6) courses, complete 30 observation hours in approved settings, pass the TExES content-pedagogy exam (math, art, etc.), complete one year of a successful internship, and pass the Pedagogy and Professional Responsibilities EC–12 exam (PPR). *The state also requires the Science of Teaching Reading (STR) exam for teacher certification for the ELAR 4-8 exam beginning January 1, 2021.*

A candidate may begin an internship upon the completion of three (3) courses, 30 observation hours, and by passing the TExES content-pedagogy exam (including the STR exam for ELAR 4-8). These requirements must be completed before an Intern Certificate can be issued. The candidate earns an internship and may complete the remaining three (3) courses, and passes the PPR exam during the period of the internship. The successful intern will become a Texas certified teacher with a standard certificate.

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, 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 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 (see ATCP Director relating to Exemptions, Exceptions, and Waivers).

Those enrolled in EC-12 Generic Special Education ATCP are required to complete six (6) courses, three (3) courses are specifically special education teacher training courses. Candidates must complete 30 observation hours, pass the TExES Special Education EC-12 exam, one year of a successful internship, and pass the Pedagogy and Professional Responsibilities EC–12 exam.

A candidate may begin an internship upon the completion of three (3) courses, 30 observation hours, and by passing the TExES Special Education EC-12 exam. These requirements must be completed before an Intern Certificate can be issued. The candidate earns an internship and may complete the remaining three (3) courses, and passes the PPR exam during the period of the internship. The successful intern will become a Texas certified teacher with a standard certificate.

All certification applications must be initiated by the Alternative Teacher Certification Program Director and the Director of Student Services and Certification. Tuition and fees apply.

Candidates have up to six years to complete coursework and obtain an internship. After six years, coursework expires per the Graduate Studies policy. If a candidate has not completed an internship and certification requirements within six years, the candidate will be dismissed from the ATCP program and the file eliminated from the system.

Society	Department
Association for Childhood Education International (ACEI)	Curriculum and Instruction
International Reading Association (IRA)	Curriculum and Instruction
Kappa Delta Pi (KDP)	Curriculum and Instruction
Phi Delta Kappa (PDK)	Curriculum and Instruction
Student Council for Exceptional Children (SCEC)	Curriculum and Instruction
Student National Education Association (SNEA)	Curriculum and Instruction
Texas Student Education Association (TSEA)	Curriculum and Instruction
Chi Sigma Iota (CSI)	Educational Leadership and Counseling
Allied Science Professional Society	Health and Kinesiology
Chi Tau Epsilon Honor Society	Health and Kinesiology
Classic Dance Ensemble (CDE)	Health and Kinesiology

Eta Sigma Gamma Honor Society	Health and Kinesiology
Panther Association for Health, Physical Education, Recreation and Dance (PAHPERD)	Health and Kinesiology
Phi Epsilon Kappa Fraternity Honor Society	Health and Kinesiology

Purpose and Goals

The Whitlowe R. Green College of Education is dedicated to preparing and supporting professionals in education, health, and kinesiology related careers to become knowledgeable and ethical graduates prepared to provide potential solutions for complex problems in society. Graduate programs in the Whitlowe R. Green College of Education are designed to meet the needs of a diverse student population, including but not limited to elementary and secondary teachers, teachers of children with special needs, curriculum and reading specialist, counselors, those who aspire for supervisory and administrative roles in elementary and secondary school, and athletic coaches and health professionals. The graduate coursework also enables educators to receive certification and/or endorsement in additional fields. Individuals with degrees in areas 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).

Instructional Organization

The Whitlowe R. Green College of Education provides programs of study leading to the Master of Arts (MA), the Master of Science in Education (MSED), the Master of Education (MED), the Master of Science (MS), and the Doctor of Philosophy (PhD) degrees. Requirements for the masters' degrees include a common core of 12 to 15 semester credit hours, a program concentration of 12 to 24 semester credit hours and a clinical or research/resource area containing a research requirement or thesis and electives. The PhD 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

Program	Degree Offered
Curriculum and Instruction	MAED, MED, MSED
Special Education	MED, MSED
Curriculum and Instruction-Reading Education	MED, MSED

Department of Educational Leadership and Counseling

Program	Degree Offered
Counseling	MA
Educational Administration	MED, MSED
Educational Leadership	PHD
Human Sciences	MS

Master Reading Teacher Certification Program

The Master Reading Teacher (MRT) 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 Studies. Specific criteria for admission can be found in the catalog section Graduate Admissions Information and Requirements (p. 50).

Formal application for admission to graduate studies is made to the Office of Graduate Studies. The departments offering graduate degrees may set requirements over and above those set by the Office of Graduate Studies.

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 Office of Graduate Studies.

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 Department of Curriculum and Instruction aims to provide regional, national, and international leadership in studying and improving 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 teacher education unit's major goals. 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 preparing candidates who are technologically literate and integrating technology into their students' learning environments.

Curriculum and Instruction Program Goals

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 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 universal design principles for learning in data collection, analysis, and utilization for academic enhancements.
6. Contribute to the educational development of the 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.

Field Observation Requirements within Professional Education Courses

According to current program testing policy, all teacher candidates **must pass** the appropriate State Content Certification examination before enrolling in the first six hours of the Professional Education 4000 level courses, CUIN 4310 and CUIN 4311. All teacher candidates must complete the sequence of courses and required field experience hours before admission to the final six hours of clinical teaching. Additionally, all teacher candidates **must pass** the Professional Pedagogy examination before enrolling in the last six hours of the professional 4000 level courses, CUIN 4310 and CUIN 4311. There is a planned sequence of field experiences in elementary and secondary school classrooms within all professional education courses, beginning with the 3000-level courses below.

Professional Education Courses

CUIN 3300	Educational Foundations	3
CUIN 3301	Educational Psychology	3
CUIN 4310	Instructional Planning and Assessment	3
CUIN 4311	Instructional Methodology and Classroom Management	3

Clinical Teaching Expectations

All major and professional education courses must be completed before admission to the last six hours of the professional 4000-level courses. Candidates have the option to participate in a year-long residency clinical program route to certification or participate in a traditional clinical route to certification; please see your advisor for information. Candidates enrolled in the last six hours of professional 4000-level courses must be prepared for an all-day assignment to a campus five days per week.

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.

Curriculum Instruction Courses

CUIN 3300 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 3301 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 4122 TExES Prep-Hist/Social Studies: 1 semester hour.

This course is designed to help students prepare to take the Texas Examination of Educator Standards (TExES) in History/Social Studies. Study of social studies curriculum, materials, and selected instructional strategies. This course is typically taken the semester before Student Teaching, or during the junior or senior year after admission to College of Education and those who are doing alternative certification.

Prerequisites: HIST 1313 or HIST 1301 and (HIST 1323 or HIST 1302) and (HIST 1333 or HIST 2301) and (POSC 1113 or POSC 2305) and (POSC 1123 or POSC 2306).

CUIN 4300 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 4301 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 4310 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 3300 or CUIN 3003) and (CUIN 3301 or CUIN 3013).

CUIN 4311 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 3300 or CUIN 3003) and (CUIN 3301 or CUIN 3013).

CUIN 4340 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.

Prerequisites: CUIN 4310 or CUIN 4103 and (CUIN 4311 or CUIN 4113).

CUIN 4343 Student Teaching/Early Childhood Education: 3 semester hours.

Supervised practicum experiences in a field setting devoted to early childhood classroom instruction

Prerequisites: CUIN 4310 or CUIN 4103 and (CUIN 4311 or CUIN 4113).

CUIN 4344 Student Teaching/Special Education: 3 semester hours.

Supervised practicum experiences in a field setting devoted to special education classroom instruction.

Prerequisites: CUIN 4310 or CUIN 4103 and (CUIN 4311 or CUIN 4113).

CUIN 4381 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.

Prerequisites: CUIN 4310 or CUIN 4103 and (CUIN 4311 or CUIN 4113).

CUIN 4641 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.

Prerequisites: CUIN 4310 or CUIN 4103 and (CUIN 4311 or CUIN 4113).

CUIN 4682 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.

Prerequisites: CUIN 4310 or CUIN 4103 and (CUIN 4311 or CUIN 4113).

CUIN 5300 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 5301 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 5302 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 5300 or CUIN 5003) and (CUIN 5301 or CUIN 5013).

CUIN 5303 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.

Curriculum Courses

CURR 1100 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 1300 or CURR 1013.

CURR 1300 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 1303 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 1301 or ENGL 1123 and (ENGL 1302 or ENGL 1133).

CURR 2101 Step 1: Inquiry Approaches to Teaching: 1 semester hour.

STEM teaching is explored in this course through the introduction to the theory and practice of inquiry-based science and mathematics lesson planning. Students experience planning and implementation of lessons through designing and preparing them for elementary school settings.

CURR 2102 Step 2: Inquiry-Based Lesson Design: 1 semester hour.

STEM teaching is further explored in this course by building upon and practicing inquiry-based lesson design and questioning skills that were developed in Step 1 and experiencing teaching with technology through demo lessons. Students become familiar with the middle school setting by observing and discussing the middle school environment and by teaching lessons to middle school students.

Prerequisites: CURR 2101.

CURR 2300 Global Influences on Teacher Education: 3 semester hours.

Introduction to teacher education from a global community perspective through exploration of societal influences on education.

CURR 3325 History and Social Studies Methods: 3 semester hours.

This course focuses on 1) the mastery of historical facts related to US, world, and Texas histories, 2) understanding the various teaching methods used in the social studies classroom, and 3) the development of lesson plans for the EC – 6, and 4-8 Social Studies classrooms. The student will also be introduced to the social studies standards of the Texas Essential Knowledge and Skills (TEKS) for licensure in Texas public schools.

Prerequisites: (HIST 1313 or HIST 1301) and ((HIST 1323 or HIST 1302) or (HIST 1333 or HIST 2301)) and (POSC 1113 or POSC 2305) and (POSC 1123 or POSC 2306).

CURR 3326 Methods of Teaching Science: 3 semester hours.

Science course designed for prospective teachers to develop competence and confidence needed to teach science in K-12 classrooms. This competence involves a level of understanding of the subject matter and pedagogical best practices that include the use of 5E Model lesson planning and implementation. The focus will be on teaching and learning science in the K-12 classroom through the integration of science content, differentiation strategies and assessment tools. As a capstone project, Students will be expected to demonstrate science content knowledge through a 5E Model science lesson designed and taught to students.

CURR 3327 Science for Teachers: 3 semester hours.

This course is designed for K-12 pre-service educators to review physical, life, environmental and earth science to address the TEA content examination in Science. It is designed to hone the science skills so teachers are competent and confident in the instruction of these topics.

CURR 4101 Science Special Topics: 1 semester hour.

Course designed to mentor students in science competitions and/ or conference preparation, manuscript, publications or Content exam preparation. As a second focus, students will be mentored to participate and compete in STEM related competitions for College students. This course may be used to provide individualized preparation for any science content examinations required by the Texas Education Agency.

CURR 4399 Independent Study: 0-3 semester hour.

Readings, research and/or field work on selected topics.

CURR 5300 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 5350 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 5399 Independent Study: 3 semester hours.

Readings, research, and/or field work on selected topics.

Early Childhood Ed Courses

ECED 3300 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 3301 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 4300 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 4301 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 4302 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.

ECED 4311 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 4312 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.

Education Foundations Courses

EDFN 5310 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 5311 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 5312 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 5314 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 5390 Thesis Research: 3 semester hours.

Selection, preparation, and presentation of a research proposal for purposes of completing thesis requirement.

EDFN 5392 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 5310 or EDFN 5103.

Reading Courses

RDNG 0010 Reading Basics Lab: 0 semester hours.

This is a basic reading course designed to improve students' overall basic reading and critical reading skills. Emphasis is on reading comprehension, vocabulary development, study techniques, and critical thinking skills. Classroom instruction is enhanced by required lab-based activities.

RDNG 3360 Evaluation of Reading Performance: 3 semester hours.

Application of basic measurement and evaluation techniques to reading performance.

RDNG 3361 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 3362 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 3364 Methods of Teaching Elementary Reading: 3 semester hours.

Analysis of various approaches and methods used in teaching reading in the elementary grades.

RDNG 4363 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 4364 Children's Literature: 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 4365 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 4367 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 5361 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 5362 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 5363 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 5364 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 5366 Clinical Experiences in Reading: 3 semester hours.

Case study analysis, seminars, and field experiences in school classrooms.

RDNG 5367 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.

Special Education Courses

SPED 3300 Introduction to Exceptional Children: 3 semester hours.

Basic theories and concepts related to identification and classification of exceptional children and youth.

SPED 3301 Psychology of Cognitive Disorders: 3 semester hours.

An introduction to the psychology of mental retardation in children and youth.

Prerequisites: SPED 3300 or SPED 3003.

SPED 4300 Psychology of Behavior Disorders: 3 semester hours.

An introduction to various theoretical aspects of children with mild emotional problem to severe behavior disturbances.

SPED 4301 Language and Communication Problems: 3 semester hours.

An overview of particular communication problems as they relate to the verbal, nonverbal, expressive, and receptive language skills of the exceptional learner.

SPED 4302 Psychometrics for Exceptional Children and Youth: 3 semester hours.

An overview of Legal implications of the assessment of children exhibiting the characteristics of behavior disorders, learning disabilities, and/ or intellectual disabilities.

SPED 4303 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.

SPED 4311 Methods for Teaching Exceptional Children: 3 semester hours.

The study of: instructional strategies for teaching children and youth with intellectual, behavioral, and/or learning disabilities; organization of special classes; and curriculum adaptations. Includes 15 clock hours of field-based experiences with exceptional learners.

Prerequisites: SPED 3300 or SPED 3003.

SPED 4312 Practicum: 3 semester hours.

A field-based experiences involving exceptional learners in the classroom. Activities include 15 clock hours of classroom observation, concepts, and skills associated with referrals of classroom problems, tests, and evaluation procedures.

Prerequisites: SPED 3300 or SPED 3003.

Co-requisite: SPED 4311.

SPED 5320 5320 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 5321 Survey of the Exceptional Learner: 3 semester hours.

An in-depth study of the various types of exceptional learners and their educational needs.

SPED 5322 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 5323 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 5324 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 5326 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 5321 or SPED 5213.

SPED 5327 Learning Theory: 3 semester hours.

An in-depth study of the various learning theories and an analysis of systematic approaches to learning.

SPED 5328 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 5334 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 5335 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 5321 or SPED 5213 and (SPED 5326 or SPED 5263) and (SPED 5328 or SPED 5283).

Department of Curriculum and Instruction, Undergraduate

Purpose and Goals

The Department of Curriculum and Instruction offers a Bachelor of Science in Teacher Education with several concentrations. The undergraduate teacher education programs prepare candidates for 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. The department has established courses and programs that reach into the community and make a difference while simultaneously increasing the number of graduate students in our college. The student selects an academic major/specialization and completes coursework toward eligibility for certification in the following areas:

- Core Subjects EC-6
- Core Subjects 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 subject areas below. 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

Teacher Education, BS

Bachelor of Science in Teacher Education Degree Program/Certification Requirements Certification Requirements

- Complete all coursework on your degree plan with an overall GPA of 2.75 or above.
- Candidates must present Letters of Recommendation from the assigned university supervisor and the cooperating teacher(s).
- Successfully complete Clinical Experiences (Student Teaching).
- Pass all state certification examinations as required per content area of concentration.
- Complete and submit the PVAMU application for the Standard Certificate.
- Complete the online Texas Education Agency application for the standard certificate.
- Pay the required certificate fee to the Texas Education Agency.
- Apply online and pay for the Texas Education Agency fingerprinting fee.
- Candidates must present Letters of Recommendation from the assigned university supervisor and the cooperating teacher(s).
- Meet the requirements for the Bachelor of Science in Teacher Education

Complete Core Curriculum Listing at <https://catalog.pvamu.edu/universitycorecurriculum/>

Core Curriculum 42 Credit Hours

Communication (Select Two)	6
Mathematics (Select One)	3
Life and Physical Sciences (Select Two)	6
Language, Philosophy, and Culture (Select One)	3
Creative Arts (Select One)	3
American History (Select Two)	6
Government/Political Science	6
POSC 2305	American Government
POSC 2306	Texas Government
Social and Behavioral Sciences (Select One)	3
Component Area Option One (Select One)	3
Component Area Option Two (Select One)	3
Teacher Education Major Requirements	
MATH 3300	Mathematics in Elementary Schools (and/) ¹
or MATH 2316	Structure of Number System
SPED 3300	Introduction to Exceptional Children
Professional Education Requirements	
Choose one 1 SCH HKIN course	1
CUIN 3300	Educational Foundations
	3

CUIN 3301	Educational Psychology	3
CUIN 4310	Instructional Planning and Assessment	3
CUIN 4311	Instructional Methodology and Classroom Management	3
Concentration (Select the appropriate certification area from below)		59
Total Hours		120

¹ Please consult with advisor regarding specific math requirement(s) for concentrations.

Core Subjects Grades EC-6 Certification

Core Subjects Grades EC-6 Major Requirements

ECED 3300	Introduction to Early Childhood	3
ECED 3301	Health/Motor/Physical Development	3
ECED 4300	Communication and Language Development	3
ECED 4301	Young Child/Cognitive Development	3
or ECED 4302	Program Organization	
ECED 4311	Instructional Strategies	3
ECED 4312	Clinical Experiences	3

Other Requirements

PHSC 1112	Sci Lab	1
PHSC 1315	Physical Science I	3
CURR 3325	History and Social Studies Methods	3
CURR 3326	Methods of Teaching Science	3
MATH 2316	Structure of Number System	3
ENGL 3304	Professional Writing for Electronic Media	3
HLTH 3300	Health Education for the Elementary School	3
BIOL 1108	Biology for Non-Science Major I Lab	1

Reading Options (Select five from below)

RDNG 3360	Evaluation of Reading Performance	
RDNG 3362	Linguistics in Reading Instruction	
RDNG 3364	Methods of Teaching Elementary Reading	
RDNG 4364	Children's Literature	
RDNG 4365	Foundations of Reading Instruction	
RDNG 4367	Clinical and Laboratory Experiences in Reading	

Other Professional Education Requirements

CUIN 4340	Student Teaching/Elementary I	3
CUIN 4343	Student Teaching/Early Childhood Education	3

Total Hours		59
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English, Language Arts, and Reading with STR Grades 4-8 Certification

English, Language Arts, and Reading with STR Grades 4-8 Major Requirements

ENGL 2331	Survey of World Literature ²	3
ENGL 3302	Creative Writing Practices ²	3
ENGL 3304	Professional Writing for Electronic Media ²	3
ENGL 3322	Advanced Grammar ²	3
ENGL 3324	Studies in American Literature ²	3
COMM 1307	Introduction to Mass Communication	3
or COMM 1342	Voice and Diction	
RDNG 4363	Developmental Reading	3
DRAM 1310	Introduction to Theatre	3
HLTH 1304	Personal Health and Wellness	3

Other Requirements

RDNG 3360	Evaluation of Reading Performance	3
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RDNG 3362	Linguistics in Reading Instruction	3
RDNG 3364	Methods of Teaching Elementary Reading	3
RDNG 4364	Children's Literature	3
RDNG 4365	Foundations of Reading Instruction	3
RDNG 4367	Clinical and Laboratory Experiences in Reading	3
MATH 2316	Structure of Number System	3
BIOL 1108	Biology for Non-Science Major I Lab	1
HIST or POSC 3000 or higher level		3
PHSC 1112	Sci Lab	1
Other Professional Education Requirement		
CUIN 4641	Student Teaching/Elementary II	6
Total Hours		59

² Or any ENGL 3000 or 4000 level course

Core Subjects Grades 4-8 Certification

Core Subjects Grades 4-8 Major Requirements

HIST 1302	United States History II	3
PHSC 1112	Sci Lab	1
CURR 3326	Methods of Teaching Science	3
PHSC 4301	Earth Science	3
PHSC 4101	Earth Science Lab	1
MATH 1342	Elementary Statistics	3
MATH 3316	Mathematics Understanding	3
MATH 4300	Mathematics Modeling and Applications	3
GEOG 1303	World Regional Geography	3
BIOL 1411	Botany	4
BIOL 1108	Biology for Non-Science Major I Lab	1
DRAM 1310	Introduction to Theatre	3
RDNG 3360	Evaluation of Reading Performance	3
RDNG 3362	Linguistics in Reading Instruction	3
RDNG 4363	Developmental Reading	3
RDNG 4365	Foundations of Reading Instruction	3
ENGL 2314	Advanced Composition	3
HLTH 1304	Personal Health and Wellness	3
KINE Elective		1
Any 4000 level BIOL		3
Other Professional Education Requirements		
CUIN 4641	Student Teaching/Elementary II	6
Total Hours		59

Mathematics Grades 4-8 Certification

Mathematics Grades 4-8 Major Requirements

MATH 1316	Trigonometry	3
MATH 1324	Finite Mathematics	3
MATH 1342	Elementary Statistics	3
MATH 1325	Calculus-Business, Life and Social Sciences	3
MATH 2318	Informal Geometry	3
MATH 3310	History of Mathematics	3
MATH 3316	Mathematics Understanding	3
MATH 4300	Mathematics Modeling and Applications	3
MATH 4305	Mathematics Teaching Capstone Course	3

Other Requirements

MATH 2316	Structure of Number System	3
PHSC 1112	Sci Lab	1
BIOL 1411	Botany	4
BIOL 1108	Biology for Non-Science Major I Lab	1
HLTH 1304	Personal Health and Wellness	3
GEOG 1303	World Regional Geography	3
CURR 3326	Methods of Teaching Science	3
RDNG 3360	Evaluation of Reading Performance	3
RDNG 4363	Developmental Reading	3
KINE Electives		2

Other Professional Education Requirements

CUIN 4641	Student Teaching/Elementary II	6
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Total Hours**59****Science Grades 4-8 Certification****Science Grades 4-8 Major Requirements**

BIOL 1501	General Biology	5
BIOL 1502	General Biology	5
BIOL 1411	Botany	4
BIOL 2416	Genetics	4
PHSC 3322	Introduction to Atmospheric Science	3
CURR 3327	Science for Teachers	3
PHSC 4301	Earth Science	3
PHSC 4101	Earth Science Lab	1
CHEM 1311	General Chemistry I	3
CHEM 1111	General Chemistry Lab I	1
Choose CHEM Elective Course		3
CHEM 1112	General Chemistry Lab II	1

Other Requirements

BIOL 1108	Biology for Non-Science Major I Lab	1
MATH 1342	Elementary Statistics	3
MATH 2316	Structure of Number System	3
CURR 3326	Methods of Teaching Science	3
CURR 4101	Science Special Topics	1
RDNG 3360	Evaluation of Reading Performance	3
RDNG 4363	Developmental Reading	3

Other Professional Education Requirements

CUIN 4641	Student Teaching/Elementary II	6
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Total Hours**59****Social Studies Grades 4-8 Certification****Social Studies Grades 4-8 Major Requirements**

HIST 1301	United States History I	3
HIST 2321	World Civilizations I	3
HIST 2322	World Civilizations II	3
HIST 2381	African-American History (or any HIST 2000 level)	3
HIST 3332	Contemporary United States (or any HIST 3000 level)	3
CUIN 4122	TEExES Prep-Hist/Social Studies	1
POSC 2350	Global Issues (or any 2000 level POSC course)	3
POSC 3351	Comparative Politics (or any POSC 3000 level)	3
GEOG 1302	Introduction to Human Geography	3

ECON 2302 or ECON 2301	Principles of Microeconomics Principles of Macroeconomics	3
Other Requirements		
ENGL 3304	Professional Writing for Electronic Media	3
GEOG 1303	World Regional Geography	3
RDNG 3360	Evaluation of Reading Performance	3
CURR 3326	Methods of Teaching Science	3
RDNG 3362	Linguistics in Reading Instruction	3
RDNG 3364	Methods of Teaching Elementary Reading	3
RDNG 4365	Foundations of Reading Instruction	3
BIOL 1108	Biology for Non-Science Major I Lab	1
ENGL 2327	American Literature I (or any ENGL 2000 or higher)	3
Other Professional Education Requirements		
CUIN 4641	Student Teaching/Elementary II	6
Total Hours		59

Special Education Grades EC-12 Certification

Special Education Grades EC-12 Major Requirements

SPED 3301	Psychology of Retardation	3
SPED 4300	Psychology of Behavior Disorders	3
SPED 4301	Language and Communication Problems	3
SPED 4302	Psychometrics for Exceptional Children and Youth	3
SPED 4303	Consultation	3
SPED 4311	Methods for Teaching Exceptional Children	3
SPED 4312	Practicum	3
Other Requirements		
PHSC 1317	Physical Science II	3
MATH 2316	Structure of Number System	3
CURR 3326	Methods of Teaching Science	3
ENGL 3304	Professional Writing for Electronic Media	3
RDNG 3360	Evaluation of Reading Performance	3
HIST or POSC 3000 or higher level		3
RDNG 3362	Linguistics in Reading Instruction	3
RDNG 3364	Methods of Teaching Elementary Reading	3
BIOL 1108	Biology for Non-Science Major I Lab	1
Select 6 hours from any RDNG 4000 level		6
PHSC 1112	Sci Lab	1
Other Professional Education Requirements		
CUIN 4340	Student Teaching/Elementary I	3
CUIN 4344	Student Teaching/Special Education	3
Total Hours		59

Bachelor of Science in Teacher Education - Core Subject EC - 6 Degree Sequence

Core: <https://catalog.pvamu.edu/universitycorecurriculum/> (<https://catalog.pvamu.edu/universitycorecurriculum/>)

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Communication Core		3 Communication Core	3
ENGL 1301		ENGL 1302	
Mathematics Core		3 American History Core	3
MATH 1314		Life and Physical Sciences Core	3
Life and Physical Sciences Core		3 PHSC 1315	

BIOL 1108	1 PHSC 1112	1
Language, Philosophy, and Culture Core	3 Creative Arts Core	3
Component Area Option Two Core	3 Government/Political Science Core	3
	POSC 2305	
Total	16 Total	16

Total Hours: 32

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Component Area Option One Core		3 MATH 3300	3
American History Core		3 PHSC 1317	3
Government/Political Science Core		3 CURR 3325	3
POSC 2306		ECED 3300	3
MATH 2316		3 HLTH 3300	3
Select One 1 SCH HKIN Course		1	
Social and Behavioral Sciences Core		3	
Total		16 Total	15

Total Hours: 31

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
SPED 3300		3 CUIV 3300	3
CURR 3326		3 CUIV 3301	3
ENGL 3304		3 ECED 4301	3
ECED 3301		3 ECED 4311	3
Reading Option Course		3 Reading Option Course	3
Reading Option Course		3 Reading Option Course	3
Total		18 Total	18

Total Hours: 36

Senior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
CUIV 4310		3 CUIV 4340	3
CUIV 4311		3 CUIV 4343	3
ECED 4312		3	
Reading Option Course		3	
ECED 4302		3	
Total		15 Total	6

Total Hours: 21

Name	Unit
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Total Semester Credit Hours: 120

BS Teacher Education - English, Language Arts and Reading 4 - 8

Core: <https://catalog.pvamu.edu/universitycorecurriculum/> (<https://catalog.pvamu.edu/universitycorecurriculum/>)

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Communication Core		3 Communication Core	3
ENGL 1301		ENGL 1302	
American History Core		3 American History Core	3
Mathematics Core		3 Life and Physical Sciences Core	3
MATH 1314		PHSC 1112	1

Life and Physical Sciences Core	3 Component Area Option One Core	3
BIOL 1108	1 DRAM 1310	3
Component Area Option Two Core	3	
Total	16 Total	16

Total Hours: 32

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Government/Political Science Core		3 Government/Political Science Core	3
POSC 2305		POSC 2306	
Creative Arts Core		3 ENGL 2331	3
MATH 2316		3 COMM 1307	3
HLTH 1304		3 or COMM 1342	
Social and Behavioral Sciences Core		3 ENGL 3302 ¹	3
Select One 1 SCH HKIN Course		1 MATH 3300	3
		Language, Philosophy, and Culture Core	3
Total		16 Total	18

Total Hours: 34

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
ENGL 3322 ¹		3 ENGL 3304 ¹	3
RDNG 3360		3 ENGL 3324 ¹	3
RDNG 3362		3 RDNG 4363	3
RDNG 3364		3 RDNG 4364	3
SPED 3300		3 CUIIN 3300	3
3000 or Higher Level HIST or POSC Course		3 CUIIN 3301	3
undefined			
Total		18 Total	18

Total Hours: 36

Senior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
RDNG 4365		3 CUIIN 4641	6
RDNG 4367		3	
CUIIN 4310		3	
CUIIN 4311		3	
Total		12 Total	6

Total Hours: 18

¹ Or any 3000 or 4000 Level Course.

Name	Unit
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Total Semester Credit hours: 120

BS Teacher Education - Core Subjects 4 - 8

Core: <https://catalog.pvamu.edu/universitycorecurriculum/> (<https://catalog.pvamu.edu/universitycorecurriculum/>)

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Communication Core		3 Communication Core	3
ENGL 1301		ENGL 1302	

Mathematics Core	3 American History Core	3
MATH 1314	Life and Physical Sciences Core	3
Life and Physical Sciences Core	3 PHSC 1315	
Language, Philosophy, and Culture Core	3 PHSC 1112	1
BIOL 1108	1 Creative Arts Core	3
Component Area Option Two Core	3 Government/Political Science Core	3
	POSC 2305	
Total	16 Total	16

Total Hours: 32

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Component Area Option One Core		3 MATH 1342	3
American History Core		3 DRAM 1310	3
Government/Political Science Core		3 HIST 1302	3
POSC 2306		ENGL 2314	3
Select One 1 SCH HKIN Course		1 HLTH 1304	3
Social and Behavioral Sciences Core		3 KINE Elective	1
Total		13 Total	16

Total Hours: 29

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
PHSC 3308		3 CUIIN 3300	3
SPED 3300		3 CUIIN 3301	3
RDNG 3362		3 MATH 3316	3
GEOG 1303		3 RDNG 4363	3
MATH 3300		3 RDNG 4365	3
or MATH 2316		Select a 4000 Level BIOL Course	3
RDNG 3360		3	
Total		18 Total	18

Total Hours: 36

Senior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
CUIIN 4310		3 CUIIN 4641	6
CUIIN 4311		3	
MATH 4300		3	
PHSC 4301		3	
PHSC 4101		1	
BIOL 1411		4	
Total		17 Total	6

Total Hours: 23

Name	Unit
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Total Semester Credit Hours: 120

BS Teacher Education - Mathematics 4 - 8

Core: <https://catalog.pvamu.edu/universitycorecurriculum/> (<https://catalog.pvamu.edu/universitycorecurriculum/>)

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Communication Core		3 Communication Core	3
ENGL 1301		ENGL 1302	
Mathematics Core		3 American History Core	3
MATH 1314		Life and Physical Sciences Core	3
Life and Physical Sciences Core		3 PHSC 1112	1
BIOL 1108		1 Creative Arts Core	3
Language, Philosophy, and Culture Core		3 Government/Political Science Core	3
Component Area Option Two Core		3 POSC 2305	
Total		16 Total	16

Total Hours: 32**Sophomore**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Component Area Option One Core		3 MATH 1316	3
American History Core		3 MATH 1325	3
Government/Political Science Core		3 GEOG 1303	3
POSC 2306		MATH 2316	3
MATH 1324		3 BIOL 1411	4
Select One 1 SCH HKIN Course		1	
Social and Behavioral Sciences Core		3	
Total		16 Total	16

Total Hours: 32**Junior**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
SPED 3300		3 CUIV 3300	3
CURR 3326		3 CUIV 3301	3
MATH 1342		3 RDNG 4363	3
MATH 2318		3 MATH 3300	3
MATH 3310		3 MATH 3316	3
HLTH 1304		3 KINE Elective	2
Total		18 Total	17

Total Hours: 35**Senior**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
CUIV 4310		3 CUIV 4641	6
CUIV 4311		3	
RDNG 3360		3	
MATH 4300		3	
MATH 4305		3	
Total		15 Total	6

Total Hours: 21

Name	Unit
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Total Semester Credit Hours: 120

BS Teacher Education Social Studies 4 - 8Core: <https://catalog.pvamu.edu/universitycorecurriculum/> (<https://catalog.pvamu.edu/universitycorecurriculum/>)

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Communication Core		3 Communication Core	3
ENGL 1301		ENGL 1302	
Mathematics Core		3 American History Core	3
MATH 1314		HIST 1302	
Life and Physical Sciences Core		3 Life and Physical Sciences Core	3
BIOL 1108		1 Creative Arts Core	3
Language, Philosophy, and Culture Core		3 Component Area Option One Core	3
Component Area Option Two Core		3	
Total		16 Total	15

Total Hours: 31

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Social and Behavioral Sciences Core		3 MATH 2316	3
HIST 1301		3 American History Core	3
Government/Political Science Core		3 HIST 2301	
POSC 2305		Government/Political Science Core	3
ENGL 2327		3 POSC 2306	
GEOG 1302		3 ENGL 3304	3
		ECON 2302	3
		or ECON 2301	
		Select One 1 SCH HKIN Course	1
Total		15 Total	16

Total Hours: 31

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
SPED 3300		3 CUIIN 3300	3
GEOG 1303		3 CUIIN 3301	3
RDNG 3362		3 HIST 2322	3
HIST 2381		3 CUIIN 4122	1
or any HIST 2000 Level		RDNG 3360	3
POSC 2350		3 RDNG 4365	3
or any POSC 2000 Level			
HIST 2321		3	
Total		18 Total	16

Total Hours: 34

Senior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
CUIIN 4310		3 CUIIN 4641	6
CUIIN 4311		3	
RDNG 3364		3	
HIST 3332		3	
POSC 3351		3	
CURR 3326		3	
or any POSC 3000 Level			
Total		18 Total	6

Total Hours: 24

Name	Unit
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Total Semester Credit Hours: 120

BS Teacher Education - Special Education All - Level Certification EC - 12Core: <https://catalog.pvamu.edu/universitycorecurriculum/> (<https://catalog.pvamu.edu/universitycorecurriculum/>)**Freshman**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Communication Core		3 Communication Core	3
ENGL 1301		ENGL 1302	
Life and Physical Sciences Core		3 Life and Physical Sciences Core	3
Mathematics Core		3 PHSC 1112	1
MATH 1332		American History Core	3
BIOL 1108		1 Government/Political Science Core	3
Language, Philosophy, and Culture Core		3 POSC 2305	
Creative Arts Core		3 Social and Behavioral Sciences Core	3
Total		16 Total	16

Total Hours: 32**Sophomore**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Government/Political Science Core		3 SPED 3300	3
POSC 2306		CURR 3325	3
Component Area Option Two Core		3 MATH 3300	3
American History Core		3 Select One 1 SCH HKIN Course	1
Component Area Option One Core		3 RDNG 3360	3
PHSC 1317		3 ENGL 3304	3
CURR 3326		3	
Total		18 Total	16

Total Hours: 34**Junior**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
RDNG 3362		3 CUIV 3300	3
SPED 3301		3 CUIV 3301	3
SPED 4303		3 SPED 4311	3
MATH 2316		3 SPED 4312	3
SPED 4301		3 Select a 4000 Level RDNG Course	3
RDNG 3364		3 SPED 4300	3
Total		18 Total	18

Total Hours: 36**Senior**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
CUIV 4310		3 CUIV 4340	3
CUIV 4311		3 CUIV 4344	3
SPED 4302		3	
Select a 4000 Level RDNG Course		3	
Total		12 Total	6

Total Hours: 18

Name	Unit
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Total Semester Credit Hours: 120

BS Teacher Education - Science 4-8

Core: <https://catalog.pvamu.edu/universitycorecurriculum/> (<https://catalog.pvamu.edu/universitycorecurriculum/>)

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Communication Core		3 Communication Core	3
Mathematics Core		3 American History Core	3
Language, Philosophy, and Culture Core		3 Creative Arts Core	3
Component Area Option Two Core		3 BIOL 1502	5
BIOL 1501		5 Government/Political Science Core	3
		POSC 2305	
Total		17 Total	17

Total Hours: 34

Second Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
PHSC 3322		3 GEOG 1303	3
American History Core		3 Life and Physical Sciences Core	3
Government/Political Science Core		3 MATH 2316	3
POSC 2306		BIOL 1411	4
Life and Physical Sciences Core		3 Social and Behavioral Science Core	3
Component Area Option One Core		3	
CHEM 1306		3	
Total		18 Total	16

Total Hours: 34

Third Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
CURR 3326		3 CUIV 3300	3
SPED 3300		3 CUIV 3301	3
CHEM 1311		3 RDNG 4363	3
CHEM 1111		1 MATH 1342	3
BIOL 2416		4 CHEM 1112	1
KINE Elective		1 CURR 3327	3
Total		15 Total	16

Total Hours: 31

Fourth Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
CUIV 4310		3 CUIV 4641	6
CUIV 4311		3	
RDNG 3360		3	
PHSC 4301		3	
PHSC 4101		1	
BIOL 1108		1	
CURR 4101		1	
Total		15 Total	6

Total Hours: 21

Name	Unit
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Total Semester Credit Hours: 120

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

BS Teacher Education

Degree Skills

1. Public speaking
2. Logical thinking
3. Organization of curriculum

Concentration Skills

1. Lesson planning
2. Collaboration across professional disciplines
3. Enhanced communication

Co-curricular and Extracurricular Skills

1. Interviewing
2. Test taking
3. Navigation of culturally diverse spaces

Department of Curriculum and Instruction, Graduate

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 Masters Program

The Department of Curriculum and Instruction offers programs leading to the Master of Education and the Master of Science in Education in the following areas:

Program	Degree Offered
Curriculum and Instruction	MAED, MED, MSED
Special Education	MED, MSED
Curriculum and Instruction - Reading Education	MED, MSED

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; and
3. Three letters of recommendation.

Students who fail to meet the criteria for regular admission may be admitted in a conditional or non-degree seeking 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 per term and may not enroll in more than 12 semester hours cumulative while in this category. Students admitted conditionally or as non-degree may attain unconditional status by achieving a 3.0 GPA for the first 12 hours of graduate work.

Completion of Entrance Requirements

Students enrolled in conditionally 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 the unconditional status has not been attained within that time frame; the student will be dismissed from the program. Conditionally admitted students may withdraw from no more than three courses during their initial probationary status. Unconditional admission will require the 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 remain and the course must be repeated.

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 a 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

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. Specific requirements may be obtained from the Office of Teacher Certification in the College of Education.

Admission 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

Required Courses for the Educational Diagnostician Certification

SPED 5323	Language and Communication Problems	3
SPED 5326	Individual Testing of Exceptional Children	3
SPED 5328	Curriculum Adjustment and the Exceptional Child	3
SPED 5334	Practicum	3
SPED 5335	Diagnostic and Prescriptive Techniques for Exceptional Learners	3
RDNG 5364	Diagnosis and Correction of Reading Difficulties	3
Total Hours		18

Curriculum and Instruction, MED

Master of Education in Curriculum and Instruction Degree Program Requirements

Certification

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. Specific requirements may be obtained from the Office of Teacher Certification in the College of Education.

Admission 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

Required Courses for the Educational Diagnostician Certification

SPED 5323	Language and Communication Problems	3
SPED 5326	Individual Testing of Exceptional Children	3
SPED 5328	Curriculum Adjustment and the Exceptional Child	3
SPED 5334	Practicum	3
SPED 5335	Diagnostic and Prescriptive Techniques for Exceptional Learners	3
RDNG 5364	Diagnosis and Correction of Reading Difficulties	3
Total Hours		18

Common Core

CURR 5300	Theory and Dynamics of Curriculum and Instruction	3
EDFN 5310	Foundations of Educational Research	3
EDFN 5311	Psychology of Learning and Development	3
EDFN 5312	Socio-Cultural Issues in Education	3

Concentration ¹ **12**

Resource and Research Requirements

EDFN 5392	Master's Seminar	3
CURR 5350	Curriculum Evaluation	3
Research Electives ²		6

Total Hours **36**

¹ Courses for the respective concentration will be selected in consultation with your advisor.

² Please consult with faculty advisor to determine appropriate research electives.

Master of Education in Curriculum and Instruction Degree Sequence

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
EDFN 5310		3 EDFN 5311	3
Concentration		3 CURR 5300	3
Concentration		3 Concentration	3
Total		9 Total	9

Total Hours: 18

Second Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
EDFN 5312		3 EDFN 5392	3
Concentration		3 CURR 5350	3
Research Elective		3 Research Elective	3
Total		9 Total	9

Total Hours: 18

Name	Unit
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Total Semester Credit Hours: 36

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

MED Curriculum and Instruction

Degree Skills

1. Organizational planning
2. Working with diverse populations
3. Leadership

Concentration Skills

1. Subject content knowledge
2. Mathematics/science skills
3. Teaching and presentation

Co-curricular and Extracurricular Skills

1. Working with diverse learners
2. Collaboration skills
3. Working with multidisciplinary teams

Curriculum and Instruction, MSED

Master of Science in Education in Curriculum and Instruction Degree Program Requirements

Certification

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. Specific requirements may be obtained from the Office of Teacher Certification in the College of Education.

Admission 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

Required Courses for the Educational Diagnostician Certification

SPED 5323	Language and Communication Problems	3
SPED 5326	Individual Testing of Exceptional Children	3
SPED 5328	Curriculum Adjustment and the Exceptional Child	3
SPED 5334	Practicum	3
SPED 5335	Diagnostic and Prescriptive Techniques for Exceptional Learners	3
RDNG 5364	Diagnosis and Correction of Reading Difficulties	3
Total Hours		18

Master of Science in Education in Curriculum and Instruction

Common Core

CURR 5300	Theory and Dynamics of Curriculum and Instruction	3
EDFN 5310	Foundations of Educational Research	3
EDFN 5311	Psychology of Learning and Development	3
EDFN 5312	Socio-Cultural Issues in Education	3

Concentration ¹ **12**

Resource and Research Requirements

EDFN 5390	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 Science in Education in Curriculum and Instruction Degree Sequence

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
EDFN 5310		3 EDFN 5311	3
Concentration		3 CURR 5300	3

Concentration	3 Concentration	3
Total	9 Total	9

Total Hours: 18

Second Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
EDFN 5312		3 EDFN 5390	3
Concentration		3 Elective	3
Elective		3 Elective	3
Total		9 Total	9

Total Hours: 18

Name	Unit
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Total Semester Credit Hours: 36

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

MSED Curriculum and Instruction

Degree Skills

1. Organizational planning
2. Working with diverse populations
3. Leadership

Concentration Skills

1. Subject content knowledge
2. Mathematics/science skills
3. Teaching and presentation

Co-curricular and Extracurricular Skills

1. Working with diverse learners
2. Collaboration skills
3. Working with multidisciplinary teams

Curriculum and Instruction- Reading Education, MED

Master of Education in Curriculum and Instruction-Reading Education Program Requirements

Certification

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. Specific requirements may be obtained from the Office of Teacher Certification in the College of Education.

Admission 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

Required Courses for the Educational Diagnostician Certification

SPED 5323	Language and Communication Problems	3
SPED 5326	Individual Testing of Exceptional Children	3
SPED 5328	Curriculum Adjustment and the Exceptional Child	3
SPED 5334	Practicum	3
SPED 5335	Diagnostic and Prescriptive Techniques for Exceptional Learners	3
RDNG 5364	Diagnosis and Correction of Reading Difficulties	3
Total Hours		18

Master of Education in Curriculum and Instruction-Reading Education Program Requirements

Major Core Requirements

CURR 5300	Theory and Dynamics of Curriculum and Instruction	3
EDFN 5310	Foundations of Educational Research	3
EDFN 5311	Psychology of Learning and Development	3
EDFN 5312	Socio-Cultural Issues in Education	3

Reading Requirements

RDNG 5361	Teaching Reading in the Elementary Grades	3
RDNG 5362	Psychology of Reading and Reading Difficulties	3
RDNG 5363	Teaching Reading in Secondary Schools	3
RDNG 5364	Diagnosis and Correction of Reading Difficulties	3
RDNG 5366	Clinical Experiences in Reading	3
RDNG 5367	Issues, Problems and Trends in Reading	3

Research and Resource

Advised Electives		3
EDFN 5392	Master's Seminar	3
Total Hours		36

Master of Education in Curriculum and Instruction- Reading Education Degree Sequence

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
EDFN 5310		3 EDFN 5311	3
RDNG 5361		3 CURR 5300	3
RDNG 5362		3 RDNG 5363	3
Total		9 Total	9

Total Hours: 18

Second Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
EDFN 5312		3 EDFN 5392	3
RDNG 5364		3 RDNG 5367	3
RDNG 5366		3 Advised Elective	3
Total		9 Total	9

Total Hours: 18

Name	Unit
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Total Semesters Credit Hours: 36

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

MED Curriculum and Instruction - Reading Education

Degree Skills

1. Ability to teach K-12 public or private schools
2. Ability to perform as instructor or adjunct instructor in higher education settings
3. Preparation for principal certification

Concentration Skills

1. Offer services in reading literacy, tutorial services, libraries

Co-curricular and Extracurricular Skills

1. Coaching in reading and technology
2. Coaching in writing and reading literacy
3. Consulting in public and private schools and business

Curriculum and Instruction- Reading Education, MSED

Master of Science in Education in Curriculum and Instruction - Reading Education Program Requirements

Certification

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. Specific requirements may be obtained from the Office of Teacher Certification in the College of Education.

Admission 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

Required Courses for the Educational Diagnostician Certification

SPED 5323	Language and Communication Problems	3
SPED 5326	Individual Testing of Exceptional Children	3
SPED 5328	Curriculum Adjustment and the Exceptional Child	3
SPED 5334	Practicum	3
SPED 5335	Diagnostic and Prescriptive Techniques for Exceptional Learners	3
RDNG 5364	Diagnosis and Correction of Reading Difficulties	3
Total Hours		18

Master of Science in Education in Curriculum and Instruction - Reading Education Program Requirements

Major Core Requirements

CURR 5300	Theory and Dynamics of Curriculum and Instruction	3
EDFN 5310	Foundations of Educational Research	3
EDFN 5311	Psychology of Learning and Development	3

EDFN 5312	Socio-Cultural Issues in Education	3
Reading Requirements		
RDNG 5361	Teaching Reading in the Elementary Grades	3
RDNG 5362	Psychology of Reading and Reading Difficulties	3
RDNG 5363	Teaching Reading in Secondary Schools	3
RDNG 5364	Diagnosis and Correction of Reading Difficulties	3
RDNG 5366	Clinical Experiences in Reading	3
RDNG 5367	Issues, Problems and Trends in Reading	3
Research and Resource		
EDFN 5390	Thesis Research	3
Advised Electives		3
Total Hours		36

Master of Science in Education in Curriculum and Instruction-Reading Education Degree Sequence

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
EDFN 5310		3 EDFN 5311	3
RDNG 5361		3 CURR 5300	3
RDNG 5362		3 RDNG 5363	3
Total		9 Total	9

Total Hours: 18

Second Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
EDFN 5312		3 EDFN 5390	3
RDNG 5364		3 RDNG 5367	3
RDNG 5366		3 Advised Elective	3
Total		9 Total	9

Total Hours: 18

Name	Unit
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Total Semester Credit Hours: 36

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

MSED Curriculum and Instruction - Reading Education

Degree Skills

1. Ability to teach K-12 public or private schools
2. Ability to perform as instructor or adjunct instructor in higher education settings
3. Preparation for principal certification

Concentration Skills

1. Offer services in reading literacy, tutorial services, libraries

Co-curricular and Extracurricular Skills

1. Coaching in reading and technology
2. Coaching in writing and reading literacy
3. Consulting in public and private schools and business

1.

Special Education, MED

Master of Education in Special Education Degree Program Requirements

Certification

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. Specific requirements may be obtained from the Office of Teacher Certification in the College of Education.

Admission 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

Required Courses for the Educational Diagnostician Certification

SPED 5323	Language and Communication Problems	3
SPED 5326	Individual Testing of Exceptional Children	3
SPED 5328	Curriculum Adjustment and the Exceptional Child	3
SPED 5334	Practicum	3
SPED 5335	Diagnostic and Prescriptive Techniques for Exceptional Learners	3
RDNG 5364	Diagnosis and Correction of Reading Difficulties	3
Total Hours		18

Master of Education in Special Education

Major Requirements

CURR 5300	Theory and Dynamics of Curriculum and Instruction	3
EDFN 5310	Foundations of Educational Research	3
EDFN 5311	Psychology of Learning and Development	3
EDFN 5312	Socio-Cultural Issues in Education	3

Special Education Requirements

SPED 5321	Survey of the Exceptional Learner	3
Program Concentration - (Select 9 hours from the following):		
SPED 5320	5320 Special Education Seminar	
SPED 5322	Diverse Learners in Inclusive Settings	
SPED 5323	Language and Communication Problems	
SPED 5324	Methods for the Exceptional Learner with Multisensory Needs	
SPED 5326	Individual Testing of Exceptional Children	
SPED 5327	Learning Theory	
SPED 5328	Curriculum Adjustment and the Exceptional Child	
SPED 5335	Diagnostic and Prescriptive Techniques for Exceptional Learners	

Research and Resource

Advised Electives		9
EDFN 5392	Master's Seminar	3

Total Hours **36**

Master of Education in Special Education Degree Sequence

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
EDFN 5310		3 EDFN 5311	3
SPED 5321		3 CURR 5300	3
Program Concentration		3 Program Concentration	3
Total		9 Total	9

Total Hours: 18

Second Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
EDFN 5312		3 EDFN 5392	3
Program Concentration		3 Advised Elective	3
Advised Elective		3 Advised Elective	3
Total		9 Total	9

Total Hours: 18

Name	Unit
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Total Semester Credit Hours: 36

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

MED Special Education

Degree Skills

1. Higher order thinking
2. Planning
3. Discipline

Concentration Skills

1. Appreciation for diverse student learning needs
2. Differentiation of instruction
3. Professional collaboration

Co-curricular and Extracurricular Skills

1. Working with diverse groups
2. Professional writing
3. Professional presentation

Special Education, MSED

Master of Science in Education in Special Education Degree Program Requirements

Certification

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. Specific requirements may be obtained from the Office of Teacher Certification in the College of Education.

Admission 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

Required Courses for the Educational Diagnostician Certification

SPED 5323	Language and Communication Problems	3
SPED 5326	Individual Testing of Exceptional Children	3
SPED 5328	Curriculum Adjustment and the Exceptional Child	3
SPED 5334	Practicum	3
SPED 5335	Diagnostic and Prescriptive Techniques for Exceptional Learners	3
RDNG 5364	Diagnosis and Correction of Reading Difficulties	3

Total Hours

18

Master of Science in Education in Special Education

Major Requirements

CURR 5300	Theory and Dynamics of Curriculum and Instruction	3
EDFN 5310	Foundations of Educational Research	3
EDFN 5311	Psychology of Learning and Development	3
EDFN 5312	Socio-Cultural Issues in Education	3

Special Education Requirements

SPED 5321	Survey of the Exceptional Learner	3
Program Concentration (Select 9 hours from the following):		9
SPED 5320	5320 Special Education Seminar	
SPED 5322	Diverse Learners in Inclusive Settings	
SPED 5323	Language and Communication Problems	
SPED 5324	Methods for the Exceptional Learner with Multisensory Needs	
SPED 5326	Individual Testing of Exceptional Children	
SPED 5327	Learning Theory	
SPED 5328	Curriculum Adjustment and the Exceptional Child	
SPED 5335	Diagnostic and Prescriptive Techniques for Exceptional Learners	

Research and Resource

Advised Electives (May be taken from Special Education concentration options)		6
EDFN 5390	Thesis Research	3
EDFN 5314	Advanced Educational Statistics (Advanced Educational Statistics)	3

Total Hours

36

Master of Science in Education in Special Education Degree Sequence

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
EDFN 5310		3 EDFN 5311	3
SPED 5321		3 CURR 5300	3
Program Concentration		3 Program Concentration	3
Total		9 Total	9

Total Hours: 18

Second Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
EDFN 5312		3 EDFN 5390	3
Program Concentration		3 Advised Elective	3

EDFN 5314	3 Advised Elective	3
Total	9 Total	9

Total Hours: 18

Name	Unit
Total Semester Credit Hours: 36	

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

MSED Special Education

Degree Skills

1. Higher order thinking
2. Planning
3. Discipline

Concentration Skills

1. Appreciation for diverse student learning needs
2. Differentiation of instruction
3. Professional collaboration

Co-curricular and Extracurricular Skills

1. Working with diverse groups
2. Professional writing
3. Professional presentation

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, leaders, counselors, 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 (emphasis in school counseling); the Master of Education in Educational Administration (MED for principal certification only); the Master of Science in Educational Administration (non-certification only); the Master of Science in Human Sciences; and the PhD in Educational Leadership (P-12 & Higher Education 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 and are research-based incorporating best practices. 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 including any applicable examinations.

Program	Degree Offered
Counseling	MA
Educational Administration	MED, MSED
Educational Leadership	PhD
Human Sciences	MS

Admission to Program

Master of Arts in Counseling (MA)

The Counseling program furthers Prairie View's mission by preparing students to assume roles of leadership and service in society as professional school counselors. The 48 credit hour Counseling program furthers Prairie View's mission by preparing students to assume roles of leadership and service in society as professional school counselors through online course and program delivery. The PVAMU Counseling program faculty prepares students based on TEA standards and guidelines to be knowledgeable, competent, ethical, and change agents in the field of counseling who exhibit the highest degree of professionalism as school counselors. Faculty prepares school counseling students to work in diverse school environments and private practice; advocate care and support for all students; develop comprehensive school counseling programs based on the standards of the American School Counselor Association and Texas Teacher Standards; collaborate with parents, school administrators, and community agencies; commit to lifelong professional development; and promote a more just and humane society as leaders of the school counseling profession at the individual, institutional and systemic ranks.

Admission Criteria

Admission criteria for the MA Counseling Program with a focus in School Counseling are established by the program faculty, which follows the general requirements outlined in the catalog section Admissions Information and Requirements (p. 50). Admission to graduate study, however, does not constitute admission to a master's degree program in the Department of Educational Leadership & Counseling. The Texas Education Agency (TEA) no longer requires a candidate to have teaching experience, nor teacher certification, as a prerequisite to School Counselor Certification. Therefore, standard Graduate School admission requirements apply to any applicant seeking the MA in Counseling degree. In determining an applicant's eligibility for admission to the MA Counseling Program, the following is required by the published deadlines:

- Completed Graduate Studies Admission Application (www.goapplytexas.org)
- Three letters of recommendation
- A 1000-word statement of purpose describing academic goals and professional interests (or as required by department)
- Non-refundable \$50.00 application fee
- Official transcripts with a cumulative 2.75 from undergraduate institution(s); 3.0 from graduate institution(s)
- TEA fee (TAS 229.9.7)

After completion of 12 SCH of coursework, a student **must apply for admission to the School Counselor Certification Program**. The following TEA requirements are prerequisites for admission:

- A completed *Admissions Application Form*,
- Submission of an official undergraduate degree transcript,
- Submission of an official to-date PVAMU graduate level transcript with a minimum cumulative GPA of 3.0,
- Completion of an interview with the Program Coordinator/Professors,
- A writing prompt response, and
- Signed acknowledgement forms indicating receipt of information pertaining to:
 1. Background check requirements for certification
 2. The Texas Code of Ethics for Educators
 3. Reasons for dismissal from the program
 4. The TEA/PVAMU/EPP complaints process
 5. Acceptance of admission offer letter or denial letter

After admission to the School Counselor Certification Program, a candidate must:

- Complete the Certification Program's exam preparation requirements,
- Take and pass the *TEXES #252 School Counselor Certification Examination* at the matriculation point designated by the PVAMU School Counselor Certification Program, and
- Successfully complete all remaining coursework as required for the degree.

Following graduation, the School Counselor Certification Program candidate must apply to be recommended to TEA for certification by contacting the Office of Student Services and Certification.

Master of Education in Educational Administration (MED)

"Preparing Principals to Lead on Day One" is the aim of the Educational Administration Program in the Department of Educational Leadership & Counseling (ELAC). The Educational Administration Program offers an online Master of Education (M.Ed.) Degree with principal certification, which requires 30 semester credit hours (10 classes), including principal internship. Students are assigned to a cohort of their peers and may complete their degree in four semesters.

As prospective school leaders, students are prepared to demonstrate the knowledge and skills required to serve as equity-centered instructional leaders and effective agents of change in diverse educational settings. Through innovative and engaging coursework, students receive high quality instruction and are provided a myriad of relevant learning opportunities. Principal candidates are prepared to lead in any school on day one. Additionally, the integration of the Texas Education Agency Instructional Leader Pillars, Domains and Competencies throughout the curricula and the course learning objectives, prepare candidates to pass the two assessments required to earn the Principal as Instructional Leader Certification in the State of Texas - 268 and 368 Performance Assessment for School Leaders (PASL).

Admission Criteria

The purpose of the MED program is to provide quality instruction, research, and service through outreach programs that foster knowledge, appreciation, and experiences in order to prepare principals and superintendents to meet the challenges of their educational goals and professions. Admission criteria for the MED program with a focus on principal certification are established by the program faculty and follow the general requirements outlined in the catalog section Admissions Information and Requirements (p. 50). Admission to graduate study, however, does not constitute admission to a master's degree program in the Department of Educational Leadership & Counseling. In determining an applicant's eligibility for admission to the MED, the following is required by the published deadlines.

- Official Transcripts
- Bachelor's Degree with GPA of 2.75 GPA minimum; GPA of 3.0 from graduate institutions
- Valid Teacher Certificate required
- Teacher Service Record with two years of teaching at end of first 12 semester credit hours
- Three Letters of Recommendation
- Graduate Studies Admissions Application (www.goapplytexas.org)
- **Deadline to apply: July 1st**
- All supporting documents (original transcript & letters of recommendation) should be mailed to:

Office of Graduate Studies

Graduate Admissions

P.O. Box 519 - Mail Stop 2800

Prairie View, TX 77446

or emailed to gradadmissions@pvamu.edu. Transcripts, when possible, should be submitted electronically using School Code 36360.

Master of Science in Educational Administration (MSED)

The Department of Educational Leadership & Counseling (ELAC) also offers an online Master of Science in Education (MSEd.) Degree. Students pursuing this degree are assigned to a cohort of their peers and are provided high quality instruction and relevant learning experiences that prepares them for leadership roles within diverse educational or non-educational settings. Courses in the program focus on problem solving, data-driven decision making, special programs, and leadership in a multicultural society - just to name a few. The degree plan requires 30 semester credit hours (10 classes) and allows individuals to complete their degree in four semesters. Individuals in the MSEd. Program are *not* seeking the Principal as Instructional Leader Certificate.

Admission Criteria

The purpose of the MSED program is to provide quality instruction, research, and service through outreach programs that foster knowledge, appreciation, and experiences in order to prepare individuals to meet their educational goals. The classes offered through the MSED program are intended for persons who do not plan to be certified as a principal. In addition, the Higher Education Administration strand offers courses that prepare graduates for successful careers in higher education. Classes for the MSED are offered online, hybrid, and face-to-face at the main campus in Prairie View, Texas, and the Northwest Houston Center. Admission criteria for the MSED program are established by the program faculty and follow the general requirements outlined in the catalog section Admissions Information and Requirements (p. 50). Admission to graduate study, however, does not constitute admission to a master's degree program in the Department of Educational Leadership & Counseling. In determining an applicant's eligibility for admission to the MSED, the following is required by the published deadlines.

- Official Transcripts
- Bachelor's Degree with GPA of 2.75 GPA minimum; GPA of 3.0 from graduate institutions
- Three Letters of Recommendation
- Graduate Studies Admissions Application (www.goapplytexas.org)
- **Deadline to apply: July 1st**
- All supporting documents (original transcript & letters of recommendation) should be mailed to:

Office of Graduate Studies

Graduate Admissions

P.O. Box 519 - Mail Stop 2800

Prairie View, TX 77446

or emailed to gradadmissions@pvamu.edu. Transcripts, when possible, should be submitted electronically using School Code 36360.

Master of Science in Human Sciences

The Department of Educational Leadership & Counseling (ELAC) also offers an online Master of Science in Education (MSEd.) Degree. Students pursuing this degree are assigned to a cohort of their peers and are provided high quality instruction and relevant learning experiences that prepares them for leadership roles within diverse educational or non-educational settings. Courses in the program focus on problem solving, data-driven decision making, special programs, and leadership in a multicultural society - just to name a few. The degree plan requires 30 semester credit hours (10 classes) and allows individuals to complete their degree in four semesters. Individuals in the MSEd. Program are *not* seeking the Principal as Instructional Leader Certificate.

Admission Criteria

Human Sciences is predicated on the needs of its target clientele to provide knowledge in an area that has a high impact on the overall well-being of couples, families, and the community especially the underserved population that includes single-parent families, underscored by a low rate of marriages and high rates of divorce. Through practical instruction students also gain experience recognizing mental and emotional disorders and resolving marriage and family conflict related to divorce, child-rearing, and family structure. Admission criteria for the MS program are established by the program faculty and follow the general requirements outlined in the catalog section Admissions Information and Requirements (p. 50). Admission to graduate study, however, does not constitute admission to a master's degree program in the Department of Educational Leadership & Counseling. In determining an applicant's eligibility for admission to the MS, the following is required by the published deadlines.

- Official Transcripts
- Bachelor's Degree with GPA of 2.75 GPA minimum; GPA of 3.0 from graduate institutions
- Three Letters of Recommendation
- Graduate Studies Admissions Application (www.goapplytexas.org)
- Individual Interview with Program Faculty
- **Deadline to apply: July 1st**
- All supporting documents (original transcript & letters of recommendation) should be mailed to:

Office of Graduate Studies

Graduate Admissions

P.O. Box 519 - Mail Stop 2800

Prairie View, TX 77446

or emailed to gradadmissions@pvamu.edu. Transcripts, when possible, should be submitted electronically using School Code 36360.

Doctor of Philosophy in Educational Leadership (PhD)

The PhD program in Educational Leadership is designed for individuals who wish to develop and enhance their leadership skills to provide the highest level of leadership in P-12 and Higher Education settings. The educational objectives of the PhD program in Educational Leadership are: 1) to meet higher education needs of the state and nation in this rapidly growing area; 2) to educate, train, and prepare individuals who possess the research and methodological skills to initiate, conduct and evaluate independent research; 3) to prepare educated citizens who are both able and willing to meet the private leadership and public sector needs of society; and 4) to prepare liberally educated individuals who know how to think, reason, critique and apply knowledge that will enable them to work and use technology in an ever changing global environment.

Admission Criteria

Students desiring admission to the PhD program must meet general requirements as outlined in the catalog section Admissions Information and Requirements (p. 50). Admission to graduate study, however, does not constitute admission to the doctoral degree program in the Department of Educational Leadership & Counseling. Admission criteria for the PhD program in Educational Leadership, as established by the program faculty, are as follows:

- Baccalaureate degree conferred by a regionally accredited institution.
- A grade point average (GPA) of 3.0 or higher on a 4.0 scale on all completed undergraduate coursework.
- 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).

- A grade point average (GPA) of 3.0 or higher on a 4.0 scale on all completed graduate coursework.
- Official transcripts, submitted to the Office of Graduate Studies, for all academic work taken at the undergraduate and graduate levels.
- Three letters of recommendation from persons and/or supervisors sufficiently acquainted with the applicant's ability and potential to successfully complete a doctoral program.
- Original written essay demonstrating strong writing skills that includes the following: autobiography, philosophy of leadership, professional aspirations and achievements, and how obtaining the PhD in Educational Leadership will enhance the applicant's ability to affect change in the educational arena.
- International students must submit official results from the Test of English as a Foreign Language (TOEFL). A score of 600 or higher is required.

The application deadline for admission to the PhD program in Educational Leadership is March 1st of each year. All materials must be received by this deadline for consideration.

The two-phase process for admission to the PhD in Educational Leadership program includes submission of materials required for admission to Graduate Studies and submission of materials required for admission to the Department of Educational Leadership and Counseling. To be admitted into the Educational Leadership doctoral program, prospective candidates must submit the following documents to the Prairie View A&M University Office of Graduate Studies and the Department through eadphd@pvamu.edu (<https://catalog.pvamu.edu/about:blank>):

1. Texas Common Application (www.goapplytexas.org)
2. An official transcript from each college or university the applicant attended, including evidence of a Master's degree from an accredited institution (transcripts must be sealed and mailed or personally delivered to the Office of Graduate Studies);
3. Official results of the Graduate Record Examination (GRE). **The score must be on file with the Office of Graduate Studies prior to the evaluation of your application file and must not be older than five years.** A TOEFL score is required for international candidates from countries where English is not the first language;
4. Application fee of \$50;
5. A completed departmental application for the PhD in Educational Leadership program;
6. An original essay of 1,000 words that describes your philosophy of leadership, your anticipated research focus, a description of your background and professional goals including your rationale for pursuing a doctoral degree and your philosophy of education;
7. A current resume or vitae; and
8. Three letters of reference from professional and/or supervisory contacts. Personal references will not be accepted. Letters 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 as part of the application packet.**

Documents must be submitted to the Office of Graduate Studies and the department via email at eadphd@pvamu.edu (<https://catalog.pvamu.edu/about:blank>). **All required documents must be received on or before March 1st to be considered for admission to the fall cycle.**

When your file is complete and you've been deemed eligible by meeting the initial requirements, you may be contacted for participation in an interview with departmental faculty, submission of a professional portfolio; and completion of a writing sample.

Educational Administration Courses

ADMN 5300 Fundamentals of 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 5301 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 5302 Public School Law and Human Resource Management: 3 semester hours.

An examination and study of legal principles as they apply to public education.

Prerequisites: ADMN 5310 or ADMN 5103.

ADMN 5303 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 5304 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 5300 or ADMN 5003.

ADMN 5305 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 5306 Problems in Education Administration: 3 semester hours.

Study and analysis of contemporary issues related to the administrative function in an educational setting.

ADMN 5307 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 5308 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 5309 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 5310 Human Resource Management: 3 semester hours.

This course is designed to expand students' knowledge of human resources management and related issues within the framework of educational leadership. In this course, students will engage in discussions based on relevant projects, field experiences, and a variety of activities designed to stimulate and improve understanding and application in the area of human resources management. Additionally, students will analyze and synthesize documents and data used in the management of human resources as it relates to school and/or organization issues.

ADMN 5311 Planning and Managing Educational Facilities: 3 semester hours.

Educational facilities planning with emphasis on design, financing, and management.

ADMN 5312 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 5313 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 5316 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 5309 or ADMN 5093) or (CNSL 5093 or CNSL 5309).

ADMN 5317 Computer Applications for Administrators: 3 semester hours.

Application of computers and selected software to information management, scheduling, and other functions of administrators.

ADMN 5320 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 5321 History of Higher Education in the United States: 3 semester hours.

This course is designed as an introduction to the historical development of higher education from early colonial times to the present. Students will identify and explore global and domestic events that have impacted and have been impacted by the development of higher education in the United States and in other parts of the world. In addition, the course focuses on globally significant as well as unique aspects of US higher education, including electives, extra-curricular activities, and intercollegiate athletics.

ADMN 5322 Institutional Effectiveness and Assessment: 3 semester hours.

This course presents a comprehensive overview of the role, scope, and purposes of institutional effectiveness. The course explores the major functions of institutional effectiveness, including assessment, research, planning and budgeting, and accreditation and how they all relate to each other.

ADMN 5323 Internship: 3 semester hours.

This course allows students to engage in meaningful field experiences that directly relate to their career interests. Students will select an internship site that provides opportunities to expand their depth and breadth of knowledge and experience in their chosen concentration. A total of 150 contact hours is required for successful completion of internship.

ADMN 5324 Legal Issues in Higher Education: 3 semester hours.

This course will be an exploration of the legal issues that affect the administration of postsecondary educational institutions. Emphasis will be on the legal environment of postsecondary institutions, legal processes, analysis, and problems incurred in the leadership and administration of colleges and universities.

ADMN 5325 Strategic Enrollment Management (SEM): 3 semester hours.

This course is designed to provide students with a comprehensive view of the history, roles, scopes, and responsibilities of the enrollment management function of an institution. Further, this course provides a template for creating an effective and exemplary enrollment management function. In addition, the course provides blueprint for critiquing and evaluating enrollment management plans and activities.

ADMN 5326 Theories, Foundations, and Functions in Student Affairs: 3 semester hours.

This course is designed as a comprehensive and in-depth exploration of the psychosocial development of today's college student. Students will learn about various student development theories and how those theories apply to the contemporary college student. Also, the course focuses on factors that influence today's college student's choice of career, political interests, values, and ethics. In addition, the course explores the various functions within a division of student affairs and how those functions contribute to the mission of the institution.

ADMN 5327 Research, Evaluation, and Data Analysis in Schools: 3 semester hours.

General orientation research course for master's degree candidates in administration. The course considers the nature of research problems, evaluations, 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 o data with public. The student is expected to complete a research project or field study utilizing appropriate methods of educational research.

ADMN 5350 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 5316 or ADMN 5163) or (CNSL 5316 or CNSL 5163) and (ADMN 5309 or ADMN 5093) or (CNSL 5309 or CNSL 5093) and (CNSL 5153 or CNSL 5315) and (ADMN 5300 or ADMN 5003) and (ADMN 5023 or ADMN 5302) and (ADMN 5033 or ADMN 5303) and (ADMN 5304 or ADMN 5043) and (ADMN 5307 or ADMN 5073) and (ADMN 5308 or ADMN 5083) and (ADMN 5301 or ADMN 5013) and (SUPV 5311 or SUPV 5113) and (ADMN 5353 or ADMN 5533) and (ADMN 5305 or ADMN 5053) and (ADMN 5103 or ADMN 5310) and (ADMN 5317 or ADMN 5173).

ADMN 5353 Data Driven Decision Making for Leaders: 3 semester hours.

This course also examines the role of data in making effective instructional, financial, and administrative decisions in educational organizations. This is a significant issue in Educational Administration; specifically, in today's standards-based testing environment in K-16 education. This course will cover concepts, theories, models and foundations of data driven decisions making, along with understanding basic applications, and basic statistical concepts for educational organizations.

ADMN 5399 Independent Study: 1-3 semester hour.

Readings, research, and/or field work on selected topics. Prerequisite: consent of advisor.

Counseling Courses

CNSL 5300 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 5321 or CNSL 5213 and (CNSL 5314 or CNSL 5143) and (CNSL 5302 or CNSL 5023).

CNSL 5301 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 5302 or CNSL 5023.

CNSL 5302 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 5303 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 5304 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 5321 or CNSL 5213 and (CNSL 5314 or CNSL 5143) and (CNSL 5302 or CNSL 5023) and (CNSL 5315 or CNSL 5153).

CNSL 5305 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 5321 or CNSL 5213) and (CNSL 5314 or CNSL 5143) and (CNSL 5302 or CNSL 5023) and (CNSL 5315 or CNSL 5153).

CNSL 5306 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 150 clock hours required.

Prerequisites: (CNSL 5301 or CNSL 5013) and (CNSL 5312 or CNSL 5123).

CNSL 5307 Clinical School Internship 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 5306 or CNSL 5063.

CNSL 5308 Psychology of Abnormal Behavior: 3 semester hours.

An examination of dysfunction in human behavior, with emphasis on description, causation, and treatment.

Prerequisites: CNSL 5213 or CNSL 5321 and (CNSL 5314 or CNSL 5143) and (CNSL 5023 or CNSL 5302) and (CNSL 5153 or CNSL 5315).

CNSL 5309 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 5311 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 5312 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 5314 or CNSL 5143) and (CNSL 5302 or CNSL 5023) and (CNSL 5315 or CNSL 5153).

CNSL 5313 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 5314 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 5315 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 5316 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 5309 or CNSL 5093.

CNSL 5318 Special Topics in Counseling: 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 5319 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 5320 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 5321 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 5350 School Counseling Internship II: 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 5301 or CNSL 5013 and (CNSL 5312 or CNSL 5123).

CNSL 5351 School Counseling Internship 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 5350 or CNSL 5503.

CNSL 5399 Independent Study: 3 semester hours.

Readings, research, and/or field work on selected topics.

Educational Leadership Courses

EDUL 7300 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 7301 Strategic Planning in Educational Leadership: 3 semester hours.

Focuses on the process of strategic planning in educational leadership and how external environments and internal dynamics affect planning procedures.

EDUL 7304 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 7305 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 7307 Special Topics: 3 semester hours.

An examination of special topics related to educational leadership. This course may be repeated when topics vary.

Prerequisites: EDUL 7360 or EDUL 7603.

EDUL 7308 Internship I Observation and Field Experience: 3 semester hours.

Field based experience designed to provide educational leaders with the opportunity to observe in varied social agencies.

EDUL 7309 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 7310 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 7314 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 7317 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 7321 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 7322 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 7324 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 7325 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 7326 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 7328 School Curriculum Leadership: 3 semester hours.

Examines the role of educational leadership 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 7330 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 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 7336 Advanced Qualitative and Quantitative Research: 3 semester hours.

Overview of doctoral level advanced quantitative and qualitative research methods in education.

Prerequisites: EDUL 7360 or EDUL 7603 and (EDUL 7361 or EDUL 7613).

EDUL 7350 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 7352 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 7360 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 7361 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 7363 Educational Statistics: 3 semester hours.

An explanation of quantitative designs including descriptive and inferential statistical procedures: to include multivariate and non-parametric techniques.

EDUL 7370 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 7371 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 7372 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 7374 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 7375 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 7376 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 7377 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 7399 Independent Study: 1-3 semester hour.

Readings, research and/or field work on selected topics.

EDUL 8300 Dissertation: 1-3 semester hour.

Studies, program procedures, and dissertation issues. May be repeated.

EDUL 8301 Dissertation Seminar: 3 semester hours.

This course will help students design and complete the dissertation including data collection, analysis, written report, and oral defense.

EDUL 8600 EDUL Dissertation: 6 semester hours.

Studies, program procedures, and dissertation issues. May be repeated.

Human Science Courses

HUSC 1135 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 1322 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 3332 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 3337 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.

HUSC 3399 Independent Study: 3 semester hours.

Readings, research and/or field work on selected topics.

HUSC 4399 Independent Study: 3 semester hours.

Readings, research, and/or field work on selected topics.

HUSC 4430 Family Consumer Economics and Management: 4 semester hours.

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.

HUSC 4630 Human Sciences Internship: 6 semester hours.

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.

HUSC 5331 Dietetic Seminar II: 3 semester hours.

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.

HUSC 5332 Marriage and Family Therapy Pre-Practicum: 3 semester hours.

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 5375 or HUSC 5753.

HUSC 5334 Research Problems: 3 semester hours.

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.

HUSC 5335 Dietetic Seminar I: 3 semester hours.

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.

HUSC 5351 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 5355 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 5356 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 5339 or HUSC 5393) and (HUSC 5351 or HUSC 5533) and (HUSC 5354 or HUSC 5543) and (HUSC 5355 or HUSC 5553).

HUSC 5358 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. Prerequisites: HUSC 5355 or HUSC 5553.

HUSC 5361 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 5362 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 5364 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 5368 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 5369 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 or HUSC 5339 and (HUSC 5543 or HUSC 5354) and (HUSC 5553 or HUSC 5355).

HUSC 5370 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 5371 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 5374 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 5399 Independent Study: 3 semester hours.

Readings, research, and/ or field placement focusing on pre-selected issues.

HUSC 5632 Advanced Practice in Dietetics I: 6 semester hours.

Preplanned experience at the professional level in dietetic administration, food service management, clinical and therapeutic nutrition and community and public health nutrition.

HUSC 5634 Marriage and Family Therapy Practicum II: 6 semester hours.

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 5356 or HUSC 5563.

HUSC 5635 Advanced Practice in Dietetics II: 6 semester hours.

Continuation of Advanced Practice in Dietetics I.

HUSC 5699 Independent Study: 1-6 semester hour.

Readings, research, and/ or field placement focusing on pre-selected issues.

Supervision Courses

SUPV 5311 Principles of Supervision: 3 semester hours.

Principles, practices and problems of the supervisory program; includes analysis of current research in the field.

Prerequisites: ADMN 5307 or ADMN 5073.

Department of Educational Leadership and Counseling, Graduate

The Department of Educational Leadership and Counseling offers several graduate programs to prepare students to address and propose solutions to some of the more challenging problems confronting educators and professionals in P-12 and higher education institutions and clinical settings.

The Master of Arts Emphasis on School Counseling (MA) degree program requires 48 credit hours that meets the Texas Education Agency (TEA) requirements to be certified as a School Counselor. The program is a comprehensive, hierarchical training curriculum that focusses on the eight core areas delineated by CACREP as well as the TEA standards.

The Master of Science in Educational Administration (MSED) is a 30 credit hour program intended for students who wish to mve into administration. This program is not intended for students who plan to be a certified principal.

The Master of Education in Educational Administration (MED) degree program requires 36 credit hours (12 classes) for individuals who plan to be a certified principal. Classes for this program are offered at our main campus in Prairie View, Texas and at the Northwest Houston Center located at 9449 Grant Road, Houston, Texas. This degree is also available totally online and through "mini-mesters" to allow student to complete the degree in 1 ½ years.

The Master of Science in Human Sciences (MS) is predicated on the needs of its target clientele to provide knowledge in an area that has a high impact on the overall well-being of couples, families, and the community especially the underserved population that includes single-parent families, underscored by a low rate of marriages and high rates of divorce. Through practical instruction, students also gain experience recognizing mental and emotional disorders and resolving marriage and family conflict related to divorce, child-rearing, and family structure.

The Doctorate in Educational Leadership (Ph.D.) degree program focuses on the development of leadership skills required to lead and inspire transformative P20 leaders, scholars, and practitioners in a rapidly changing, diverse society. The Ph.D. Program in Educational Leadership offers two strands, P-12 Leadership and Higher Education. Classes are offered on weekends and online.

Counseling, MA

Master of Arts in Counseling 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.

Counseling Core I

CNSL 5305	Orientation to Counseling and Development	3
CNSL 5321	Professional Ethics for School Counselors	3
CNSL 5314	Human Growth and Development	3
CNSL 5302	Theory and Practice of Counseling	3
CNSL 5315	School Counseling in a Multicultural Society	3

Counseling Core II - Program Concentration

CNSL 5311	Career Development Counseling	3
CNSL 5301	Counseling Techniques	3
CNSL 5316	Research and Measurement in Counseling	3
CNSL 5313	Group Dynamics	3
CNSL 5312	Assessment Evaluation and Interpretation of Student Data	3
CNSL 5304	School Consultation	3
CNSL 5308	Psychology of Abnormal Behavior	3
CNSL 5300	Organization and Administration of School Counseling Programs	3
CNSL 5306	School Counseling Practicum	3
CNSL 5319	Play Therapy	3
CNSL 5320	Drugs and the Indiv	3

Total Hours

48

Master of Arts in Counseling Degree Sequence

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
CNSL 5321		3 CNSL 5302	3
CNSL 5305		3 CNSL 5311	3

CNSL 5314	3	CNSL 5315	3
Total	9	Total	9

Total Hours: 18

Second Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
CNSL 5300		3 CNSL 5308	3
CNSL 5312		3 CNSL 5316	3
CNSL 5301		3 CNSL 5313	3
Total	9	Total	9

Total Hours: 18

Third Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
CNSL 5306		3 CNSL 5304	3
CNSL 5319		3 CNSL 5320	3
Total	6	Total	6

Total Hours: 12

Name	Unit
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Total Semester Credit Hours: 48

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

MA Counseling

Degree Skills

1. Mental health intervention
2. Implementing and evaluating of effective school guidance programs
3. Active listening

Co-curricular and Extracurricular Skills

1. Cultural competency
2. Establishing and nurturing relationships with students, parents, and teachers
3. Assessment, evaluation, and appraisal

Educational Administration, MED

Master of Education in Educational Administration 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.

Major Requirements

Core I		
ADMN 5300	Fundamentals of School Administration	3
ADMN 5313	School-Community Relations	3
ADMN 5316	Research and Evaluation in Schools	3
ADMN 5320	Leadership in a Multicultural Society	3
Core II		
ADMN 5302	Public School Law and Human Resource Management	3

ADMN 5304	The Role of the Principal	3
ADMN 5307	School Curriculum and Instructional Leadership	3
ADMN 5308	Special Topics in Educational Administration	3
ADMN 5310	Human Resource Management	3
ADMN 5350	Mid-Management Internship ¹	3
Total Hours		30

¹ Internship must be taken in final semester and term enrollment may not exceed 12 SCH.

Master of Education in Educational Administration Degree Sequence

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
ADMN 5300		3 ADMN 5302		3 ADMN 5310	3
ADMN 5304		3 ADMN 5307		3 ADMN 5313	3
ADMN 5320		3 ADMN 5316		3	
Total		9 Total		9 Total	6
Total Hours: 24					

Second Year

Fall - Semester 1	Hours
ADMN 5308	3
ADMN 5350	3
Total	6
Total Hours: 6	

Name	Unit
Total Semester Credit Hours: 30	

Marketable Skills

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MED Educational Administration

Degree Skills

1. Campus leadership
2. Interpersonal relationship cultivation
3. Strategic planning

Co-curricular and Extracurricular Skills

1. Consumer and producer of research
2. Cultural competency
3. Instructional leadership

Educational Administration, MSED

Master of Science in Education in Educational Administration 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.

Core		
ADMN 5309	Educational Statistics	3

ADMN 5320	Leadership in a Multicultural Society	3
SUPV 5311	Principles of Supervision	3
Program Concentration		
ADMN 5303	School Business Management	3
ADMN 5313	School-Community Relations	3
ADMN 5317	Computer Applications for Administrators	3
ADMN 5353	Data Driven Decision Making for Leaders	3
Specialized Preparation		
ADMN 5301	Educational Administration: Theory, Practice and Research	3
ADMN 5305	Management of Special Programs	3
ADMN 5310	Human Resource Management	3
Total Hours		30

Principal Certification

Principal - Certification Only

ADMN 5300	Fundamentals of School Administration	3
ADMN 5302	Public School Law and Human Resource Management	3
ADMN 5303	School Business Management	3
ADMN 5304	The Role of the Principal	3
ADMN 5307	School Curriculum and Instructional Leadership	3
ADMN 5350	Mid-Management Internship	3
Total Hours		18

Superintendent Certification

Students interested in obtaining Superintendent Certification must apply for certification through the Office of Teacher Certification and meet the following requirements:

1. Master's Degree;
2. Possess a Professional Mid-Management or Professional Principal Certification;
3. Three (3) years of experience in educational administration;
4. Attend a departmental sponsored review session;
5. Achieve a score of 290 or above on Certify Teacher software program;
6. Must pass the representative exam with a score of 90% or greater; and
7. 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.

Superintendent Certification with Master's Level

ADMN 5301	Educational Administration: Theory, Practice and Research	3
ADMN 5305	Management of Special Programs	3
ADMN 5306	Problems in Education Administration (Problems in Administration)	3
ADMN 5310	Human Resource Management	3
ADMN 5312	School Finance (School Finance)	3
ADMN 5311	Planning and Managing Educational Facilities	3
ADMN 5313	School-Community Relations	3
ADMN 5317	Computer Applications for Administrators	3
Total Hours		24

Candidates must apply for their certification through the Office of Teacher Certification. Courses must have been taken within the last ten (10) years in order to receive credit toward certification. No grade of "C" or lower will be accepted toward certification.

Master of Science in Education in Educational Administration Degree Sequence

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
ADMN 5313		3 ADMN 5353		3 ADMN 5303	3
ADMN 5317		3 ADMN 5310		3 ADMN 5305	3
ADMN 5320		3 SUPV 5311		3	
Total		9 Total		9 Total	6

Total Hours: 24

Second Year

Fall - Semester 1	Hours
ADMN 5309	3
ADMN 5301	3
Total	6

Total Hours: 6

Name	Unit
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Total Semester Credit Hours: 30

Principal Certification Degree Sequence

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
ADMN 5307		3 ADMN 5302	3
ADMN 5308		3 ADMN 5316	3
ADMN 5310		3 ADMN 5350	3
Total		9 Total	9

Total Hours: 18

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

MSED Educational Administration

Degree Skills

1. Campus leadership
2. Interpersonal relationship cultivation
3. Strategic planning

Co-curricular and Extracurricular Skills

1. Consumer and producer of research
2. Cultural competency
3. Instructional leadership

Educational Leadership, PhD

Doctor of Philosophy in Educational Leadership Degree Program Requirements

Candidates may choose a concentration in one of the following areas: P-12 Administration and Higher Education. Candidates complete designated course work to satisfy the concentration area requirement. Superintendent and principal certifications are offered at the Master's degree level. The PhD level courses are not listed as the Texas administrator certification courses. Although PhD graduates are preferred by school districts for many central office administrative positions, Texas does not require a PhD 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

Core Courses		15
EDUL 7301	Strategic Planning in Educational Leadership	
EDUL 7304	Organizational Development and Change in Education	
EDUL 7305	Diversity in Educational Institutions	
EDUL 7310	Educational Research and Evaluation	
EDUL 7322	Governance in P-20 Institutions	
Research Courses		12
EDUL 7336	Advanced Qualitative and Quantitative Research	
EDUL 7360	Quantitative Research Design and Analysis	
EDUL 7361	Qualitative Research Design and Analysis	
EDUL 7363	Educational Statistics	
Dissertation Courses		15
EDUL 8301	Dissertation Seminar	
EDUL 8300	Dissertation (Minimum 12 hours)	
Concentration (Select one from below) ¹		21
Total Hours		63
¹ See your advisor to ensure you take the course that is appropriate for your concentration.		
P-12 Concentration Core Courses		12
EDUL 7314	Educational Technology and Organizations	
EDUL 7321	School Law and Policy	
EDUL 7328	School Curriculum Leadership	
EDUL 7330	Public School Finance and Resource Allocation	
Internship		3
EDUL 7308	Internship I Observation and Field Experience	
Electives (Select two courses from below):		6
EDUL 7307	Special Topics	
EDUL 7317	Data-Driven Decision Making	
EDUL 7324	School - Community Relations	
EDUL 7350	Human Resources Administration in Education	
EDUL 7352	Teacher Supervision, Evaluation and Professional Development	
Total Hours		21
Higher Education Concentration Core		12
EDUL 7314	Educational Technology and Organizations	
EDUL 7370	Higher Education Administration	
EDUL 7371	Higher Education Finance and Management	
EDUL 7375	Assessing Higher Education Environments	
Electives (Select three courses from below):		9
EDUL 7374	Higher Education Policy and Analysis	
EDUL 7376	Institutional Effectiveness, Assessment and Accreditation	
EDUL 7307	Special Topics	
EDUL 7308	Internship I Observation and Field Experience	
EDUL 7372	The Role of Student Affairs in Higher Education	
EDUL 7377	College Teaching Theories, Models and Strategies	
Total Hours		21

Time Limit

Students attending full-time should be able to complete the formal doctoral course work within 2 – 2 ½ 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.

Doctor of Philosophy in Educational Leadership Degree Sequence

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
EDUL 7310		3 EDUL 7363		3 EDUL 7301	3
EDUL 7304		3 EDUL 7322		3 Concentration	3
EDUL 7305		3 Concentration		3	
Total		9 Total		9 Total	6

Total Hours: 24

Second Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
EDUL 7360		3 EDUL 7361		3 Concentration	3
Concentration		3 Concentration		3	
Concentration		3 Concentration		3	
Total		9 Total		9 Total	3

Total Hours: 21

Third Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours	Summer	Hours
EDUL 7336		3 EDUL 8300		3 EDUL 8300	3
EDUL 8301		3 EDUL 8300		3 EDUL 8300	3
Total		6 Total		6 Total	6

Total Hours: 18

Name	Unit
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Total Semester Credit Hours: 63

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

PhD Educational Leadership

Degree Skills

1. Research
2. Interpersonal relationships
3. Communication

Co-curricular and Extracurricular Skills

1. Cultural competency
2. Planning and managing change
3. Identifying, producing and utilizing research

Human Sciences, MS

Master of Science in Human Sciences Degree Program Requirements

The Human Sciences program requires a minimum of 33 credit hours of course work and three credit hours of clinical practicum. Through the program, students will understand various mental health issues and acquire the necessary skills to work systematically with individuals, couples, and families.

Required Courses

HUSC 5351	Family Theory and Issues	3
HUSC 5355	Human Development	3
HUSC 5332	Marriage and Family Therapy Pre-Practicum	3
HUSC 5356 or HUSC 5369	Marriage and Family Therapy Practicum I Thesis	3
HUSC 5358	Mental Health and Psychopathology	3
HUSC 5361	Victimization and Crisis Management	3
HUSC 5362	Counseling Diverse Populations	3
HUSC 5364	Clinical Assessment	3
HUSC 5368	Family Ethics and Issues	3
HUSC 5371	Group Therapy	3
HUSC 5374	Addiction and Family Intervention	3
HUSC 5334	Research Problems	3

Total Hours

36

Master of Science in Human Sciences Degree Sequence

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
HUSC 5351		3 HUSC 5371	3
HUSC 5355		3 HUSC 5364	3
HUSC 5361		3 HUSC 5362	3
Total		9 Total	9

Total Hours: 18

Second Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
HUSC 5358		3 HUSC 5374	3
HUSC 5368		3 HUSC 5334	3
HUSC 5332		3 HUSC 5356 or HUSC 5369	3
Total		9 Total	9

Total Hours: 18

Name	Unit
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Total Semester Credit Hours: 36

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

Degree Skills

1. Knowledge of human behavior and mental health issues
2. Knowledge of theoretical models used in clinical settings

3. Knowledge of diagnosing, case formulation, and treatment planning
4. Ability to work with marginalized populations

Concentration Skills

1. Analytical thinking
2. Critical thinking
3. Problem solving
4. Communication
5. Self-awareness

Co-curricular and Extracurricular Skills

1. Effective communication
2. Active listening
3. Rapport building
4. Crisis management
5. Flexibility
6. Time management

School of Public and Allied Health

Purpose and Goals

The School of Public and Allied Health at Prairie View A&M University is ideally situated to respond to ongoing public health crises and the wellness needs of our communities.

Programs in public health prepare students, informed by a behavioral health science approach, for professions dedicated to improving individual, community and population health, eradicating health disparities, and achieving health equity and social justice. As the state of Texas and the country responds to health concerns, such as the recent COVID-19 pandemic, the role of public health in ensuring the delivery of equitable health care to all populations has become evident. The School of Public and Allied Health addresses the role institutions of higher education can play in strengthening public health infrastructure by preparing public health professionals. PVAMU's academically rigorous and relevant interdisciplinary Public Health program is offered to a diverse population of students, whom, upon completion of the program, can think critically, provide leadership, and develop and apply strategies designed to address challenging global public health issues (e.g., COVID-19, Climate Change, Food Insecurities, and Racism and Health).

Programs in health and kinesiology expose candidates to rigorous programs focusing on improving the overall quality of life and prepares them for professional health and kinesiology-related careers. The learning environment is structured to provide a solid foundation for research in rural, urban, and suburban issues affecting health, wellness, sport, and physical fitness. Students are exposed to experiences and intentionally taught how to become morally responsible leaders who think critically, act wisely, and work skillfully to advance various career paths associated with the fields of health, kinesiology, and physical education. In addition, the undergraduate program offers health and fitness activity classes to every Prairie View A&M student for physical activity participation opportunities.

Admission

Freshman and transfer admission is based on the University's general academic 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. Students interested in graduate study must meet all requirements as outlined by the Office of Graduate Studies (p. 50).

Instructional Organization

Program	Degree Offered
Health	BS, MED, MS
Kinesiology	BS
Physical Education	MED, MS
Public Health	BA, BS

Minor in Health

Health Minor

HLTH 1304 Personal Health and Wellness

HLTH 2302	Communicable and Noncommunicable Diseases	3
HLTH 3301	Nutrition	3
HLTH 3304	Consumer Health	3
HLTH 4306	Health and Communities	3
HLTH 4307	Community Health Planning and Assessment	3
Total Hours		18

Minor in Public Health

Public Health Minor

PHLT 1310	Foundation to Public Health	3
PHLT 2325	Biostatistics	3
PHLT 3312	Health Policy & Health Systems	3
PHLT 3320	Determinants of Health and Health Disparities	3
PHLT 3324	Epidemiology	3
PHLT 4302	Global Health	3
Total Hours		18

Minor in Applied Exercise Science

Applied Exercise Science Minor

KINE 2307	Psycho-Social Aspects of Sport	3
KINE 2308	Practicum in Kinesiology and Sport ¹	3
HLTH 3301	Nutrition	3
KINE 4308	Administrative Management of Kinesiology	3
KINE 4323	Fitness Program	3
SPMT 4311	Legal Aspects of Sport	3
Total Hours		18

¹ Non-Kinesiology majors enroll in KINE 4303 or KINE 3302.

Minor in Sports Management

Sport Management Minor

SPMT 1302	Foundations of Sport Management	3
KINE 2308	Practicum in Kinesiology and Sport ¹	3
MGMT 2320	Leadership and Ethics	3
SPMT 2310	Sport Governance	3
MRKT 3311	Sports, Entertainment, and Event Marketing	3
SPMT 4311	Legal Aspects of Sport	3
Total Hours		18

¹ Non-Kinesiology majors enroll in KINE 4303 or KINE 3302.

Minor in Kinesiology

Kinesiology Minor

KINE 1208	Fundamentals of Human Movement	2
HKIN 1112	Conditioning and Self Analysis	1
KINE 1330	Foundation to Kinesiology	3
KINE 3302	Applied Anatomy and Kinesiology	3
HKIN 3366	Exercise Physiology	3
KINE 4303	Measurement and Evaluation	3

KINE 4306	Adapted Physical Activity	3
Total Hours		18

Minor in eSports and Virtual Reality

eSports and Virtual Reality Minor

ESPT 1301	Introduction to eSports	3
ESPT 2301	The Business of eSports and Virtual Reality	3
ESPT 3301	eSports and Virtual Reality Physical Training and Rehab	3
KINE 2308	Practicum in Kinesiology and Sport	3
MGMT 2320	Leadership and Ethics	3
SPMT 4311	Legal Aspects of Sport	3
Total Hours		18

Professional and Service Organizations

Honor Societies

Chi Tau Epsilon Honor Society

Endeavors to support the growth and development of talent and scholarship within university, college, and community college dance programs and to honor outstanding students in the field of dance.

GPA: 3.0 or above

Requirements: Dance minor/major

Intake: Invitation only

Eta Sigma Gamma

Mission: Promotion of the discipline by elevating the standards, ideals, competence, and ethics of professionally prepared men and women in health education.

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.

GPA: 3.0 or higher

Requirements: Health major

Intake: Invitation only

Phi Epsilon Kappa

Mission: Professional fraternity for persons engaged in or pursuing careers in physical education, health, recreation, dance, human performance, exercise science, sports medicine, and sports management.

Phi Epsilon Kappa is a national professional fraternity for persons engaged in pursuing careers in Physical Education, Health, Recreation, Dance, Kinesiology/Human Performance, Exercise Science, Sports Medicine, and Sports Management. Membership is open to persons interested in the purposes of the Fraternity and in providing time and energy for the benefit of these areas.

Membership: Open to Prairie View A&M University (PVAMU) Kinesiology students who meet the following requirements:

1. Have at minimum a 3.0 overall grade point average (GPA) at the time of their membership application.
2. Be in good standing with PVAMU.
3. Be declared as a Kinesiology/Human Performance major and/or minor for at least one year and must have enrolled as an undergraduate or graduate student at PVAMU for a minimum of 2 semesters.

Social Clubs

Allied Science Professional Society

Empower and direct its members on a guided pathway to prepare for careers (e.g. dpt/pta, ot/dot/ota, atc, pa, dc, pm&r, pharmd, and related professions) As well as ensuring growth of all members for success through development of its members professionally, mentally, and socially.

GPA: 3.00+

Requirements: Health or Kinesiology major, Department Minors

Intake: Application and review of requirements

Classic Dance Ensemble

The mission of CDE is to achieve excellence through dance, by portraying a commitment to discipline, technique, and dance education.

GPA: 2.5 or above

Requirements: Technique in Ballet, Modern & Jazz

Intake: Completion of CDE Application and Audition

P.A.H.P.E.R.D

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.

Provide networking opportunities to those students transitioning into the professional atmosphere. Expose students to current trends, activities, and issues in health and physical education. Committed to the development of knowledge and programs that promote active, healthy lifestyles.

Requirements: All Health and Kinesiology majors and Dance minor (No GPA required)

Intake: Open invitation

Other Professional Organizations

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.

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.

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.

Health Kinesiology Courses

HKIN 1101 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.

HKIN 1106 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.

HKIN 1108 Fundamentals of 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.

HKIN 1109 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.

HKIN 1110 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.

HKIN 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.

HKIN 1112 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.

HKIN 1114 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.

HKIN 1120 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.

HKIN 1122 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.

HKIN 1123 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.

HKIN 1124 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.

HKIN 1125 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.

HKIN 1127 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.

HKIN 1128 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.

HKIN 1129 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.

HKIN 1130 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.

HKIN 1164 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.

HKIN 1306 First Aid, Safety and CPR: 3 semester hours.

Certification program (The American Red Cross) for emergency care procedures for illness, injury, and cardiopulmonary resuscitation.

HKIN 2307 Psycho-Social Aspects of Sport: 3 semester hours.

This course will engage psychological and sociological perspectives toward understanding sports and physical activity as both personal engagements and social phenomena. Topics will include sport-based youth development, mental health and physical activity, performance enhancement, and sport and social issues.

HKIN 2308 Practicum in Kinesiology and Sport: 3 semester hours.

This course provides experiential learning opportunities for students to apply and integrate knowledge acquired through coursework, develop skills, clarify values, and develop capacity to contribute to their professional and community organizations. Students will also be able to clarify and broaden their career goals further refining necessary competencies and skills for their proposed career objectives. Work is supervised by personnel within the approved work site.

Prerequisites: KINE 1303 or KINE 1330.

HKIN 3366 Exercise Physiology: 3 semester hours.

This course is a study of the physiological bases of exercise and physical conditioning through investigation of the body's response to exercise; measurement of the metabolic efficiency during exercise, neuromuscular efficiency, and body composition.

Prerequisites: (KINE 3023 or HKIN 3302) and (MATH 1113 or MATH 1314).

HKIN 4304 Athletic Injuries: 3 semester hours.

Theory and practice of prevention and treatment of athletic injuries; laboratory experience in techniques of massaging and bandaging.

Prerequisites: KINE 3023 or HKIN 3302.

Health Courses

HLTH 1301 Foundation of Health Education: 3 semester hours.

This course introduces the student to the health education profession. Roles and responsibilities of health educators in a variety of occupational settings are described.

HLTH 1302 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 1304 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 1306 Environmental Health: 3 semester hours.

Health aspects of environment, including health problems related to water, air, and noise pollution, pesticides, population, and radiation.

HLTH 2302 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 2303 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 3300 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 3301 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 3302 Mental Health Promotion: 3 semester hours.

The course is designed to address health issues and problems that various ethnic groups face in the United States. Cultural differences in health behaviors, health care access, and promotion and prevention programs are emphasized.

HLTH 3303 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 3304 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 3305 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 3309 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 3311 Overview of the U.S. Healthcare system: 3 semester hours.

Overview of the U.S. healthcare system, including its evolution, utilization patterns, providers - human, institutional and organizational - financing, regulating, evaluating, and reforming.

HLTH 3387 Medical Terminology: 3 semester hours.

Medical terminology is the study of the principles of medical word building to help the student develop the extensive medical vocabulary used in health care occupations. Students receive a thorough grounding in basic medical terminology through a study of root words, prefixes and suffixes. The study focuses on correct pronunciation, spelling and use of medical terms. Anatomy, physiology, and pathology of disease are discussed.

HLTH 4199 Independent Study: 1 semester hour.

Reading, research, and/or field work on selected topics.

HLTH 4305 Health Law and Ethics: 3 semester hours.

This course presents an overview of legal and ethical issues facing managers and providers in health care. It provides students with a foundation of health law and ethics and reviews a wide variety of health care legal and ethical situations and dilemmas. The goals are to provide students with practical knowledge of health laws and ethics and their application in the real world of health care.

HLTH 4306 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 4307 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 4308 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 4310 Health Administration and Leadership: 3 semester hours.

In-depth study of a narrow range of topics considered to be of immediate concern to the health care industry. Special emphasis on problems unique to managers in the field of health administration. Current trends and problems in health administration affecting health administration technical and professional personnel. Designed to place emphasis in selected areas of administration and management.

HLTH 4399 Independent Study: 3 semester hours.

Readings, research, and/or field work on selected topics.

HLTH 5199 Independent Study: 1 semester hour.

Readings, research, and/or field work on selected topics.

HLTH 5304 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 5306 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 5307 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 5313 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 5314 Medical Foundations for Health Professions: 3 semester hours.

Medical and psychosocial approaches 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 5317 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 5318 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 5319 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.

HLTH 5399 Independent Study: 3 semester hours.

Readings, research, and/or field work on selected topics.

Kinesiology Courses

KINE 1201 Sports Skills I: 2 semester hours.

Theory and application of fundamental skills in flag and touch football, soccer, wrestling and gymnastics I.

KINE 1202 Sports Skills II: 2 semester hours.

Emphasis given to theory and application skills for fundamentals in badminton, bowling, tennis, and racquetball.

KINE 1208 Fundamentals of Human 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 1215 Low Organized Games: 2 semester hours.

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 1330 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 2205 Intramural and Recreational Sports: 2 semester hours.

Theory and practice in organizing and conducting tournaments, meets, and field days.

KINE 2303 Lifeguarding: 3 semester hours.

Demonstration and practice in knowledge and skills to prevent, recognize, and respond to aquatic emergencies. Students have opportunity to complete requirements for the American Red Cross Lifeguarding Certification. Recommended proficiency in five basic strokes (front and back crawls; elementary back, side and breast strokes).

KINE 2304 Coaching Individual and Dual Sports: 3 semester hours.

This course is designed for majors with intermediate and advanced skills. Students deal with strategy, rules, and court layouts with special emphasis on fundamentals and materials for individual and dual sports.

Prerequisites: KINE 1151 or KINE 1215.

KINE 2306 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 2307 Psycho-Social Aspects of Sport: 3 semester hours.

This course will engage psychological and sociological perspectives toward understanding sports and physical activity as both personal engagements and social phenomena. Topics will include sport-based youth development, mental health and physical activity, performance enhancement, and sport and social issues.

KINE 2308 Practicum in Kinesiology and Sport: 3 semester hours.

This course provides experiential learning opportunities for students to apply and integrate knowledge acquired through coursework, develop skills, clarify values, and develop capacity to contribute to their professional and community organizations. Students will also be able to clarify and broaden their career goals further refining necessary competencies and skills for their proposed career objectives. Work is supervised by personnel within the approved work site.

Prerequisites: KINE 1303 or KINE 1330.

KINE 3301 Water Safety Instruction: 3 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 Certification.

KINE 3302 Applied Anatomy and Kinesiology: 3 semester hours.

A scientific study of the structural kinesiology and biomechanics of human movement.

Prerequisites: (BIOL 2401 or BIOL 1054) and (BIOL 2402 or BIOL 1064) and (KINE 1208 or KINE 1082).

KINE 3303 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 or KINE 1215) and (KINE 1082 or KINE 1208).

KINE 3305 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 1303 or KINE 1330).

KINE 3306 Theory and Practice of Coaching: 3 semester hours.

Theory and strategy of coaching football, basketball, and volleyball.

Prerequisites: (KINE 1082 or KINE 1208) and (KINE 1303 or KINE 1330).

KINE 3365 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.

Prerequisites: (KINE 1082 or KINE 1208) and (KINE 1303 or KINE 1330).

KINE 4303 Measurement and Evaluation: 3 semester hours.

This course is a study of various kinds of tests and test usage in the field of health and kinesiology. Students are exposed to and participate in practical experiences in the 1) construction and administration of tests, 2) application and use of elementary statistics to manipulate data, and 3) interpretation of results.

Prerequisites: KINE 3023 or KINE 3302.

KINE 4304 Athletic Injuries: 3 semester hours.

Theory and practice of prevention and treatment of athletic injuries; laboratory experience in techniques of massaging and bandaging.

Prerequisites: KINE 3023 or KINE 3302.

KINE 4305 Special Topics in Health and Kinesiology: 3 semester hours.

Detailed study of selected topic and activities.

KINE 4306 Adapted Physical Activity: 3 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.

KINE 4307 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 3033 or KINE 3303.

KINE 4308 Administrative Management of Kinesiology: 3 semester hours.

This course studies the principles and fundamentals in the organization, administration and supervision of the health, kinesiology, intramural, and athletic programs.

Prerequisites: KINE 1208 and KINE 1217 and BIOL 2301 and BIOL 2101 and BIOL 2302 and BIOL 2102.

KINE 4309 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.

Prerequisites: KINE 4232 or KINE 4322.

KINE 4310 Research Methods: 3 semester hours.

This course is designed to acclimate students to current research and the research process in their chosen field of study through exploration of scientific writings.

KINE 4315 Education Preparation: 3 semester hours.

Detailed study of selected topics and activities.

KINE 4322 Advanced Athletic Injuries: 3 semester hours.

This course provides knowledge of clinical procedures with an emphasis on application techniques, therapeutic modalities, therapeutic exercise, and rehabilitative practices.

Prerequisites: KINE 4304 or KINE 4042.

KINE 4323 Fitness Program: 3 semester hours.

This course uses health, wellness and fitness assessments to develop healthy lifestyles.

KINE 4399 Independent Study: 1-3 semester hour.

Readings, research and/or field work on selected topics.

KINE 4619 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.

Prerequisites: KINE 2308.

Physical Education Courses

PHED 5313 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 5314 Sociology 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 5330 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 5350 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 5399 Independent Study: 1-3 semester hour.

Readings, research and/or field work on selected topics.

Public Health Courses

PHLT 1306 Environmental Health: 3 semester hours.

This course is designed to introduce students to examine human-environment interactions in modern society, including: environmental problems related to life in technologically advanced societies, renewable resources, and the effects of various human activities and enterprises on environments.

PHLT 1310 Foundation to Public Health: 3 semester hours.

This course introduces the student to the health education profession. Roles and responsibilities of health educators in a variety of occupational settings are described.

PHLT 1320 Principles of Health Promotion and Disease Prevention: 3 semester hours.

This course covers essential content in addressing social and behavioral science concepts for application across public health domains. Material will address theories and applications in public health. The course will focus on three major approaches to public health problems: Psychosocial. The psychosocial unit will include exposure to multiple behavioral theories and application of theory in understanding etiology and planning interventions. Community. The community unit will include a review of community change concepts and theories and exposure to community organizing techniques. Economics and Policy. The economics and policy unit will address such functions as supply and demand, opportunity costs, costs versus benefits, and intended vs. unintended consequences in examining the role of economics and policy change in decision-making about public health.

PHLT 2325 Biostatistics: 3 semester hours.

The purpose of the course is to teach fundamental concepts and techniques of descriptive and inferential statistics with applications in health care, medicine, public health, and epidemiology. Basic statistics, including probability, descriptive statistics, inference for means and proportions, and regression methods are presented. The analytic methods and applications will be linked to topics including health promotion, epidemiology, and program evaluation.

PHLT 2351 Advanced Health Promotion and Disease Prevention: 3 semester hours.

This course examines personal, social, and environmental factors that influence health-related behaviors as well as the role of individuals, groups, institutions, social structures, and policy in encouraging and discouraging healthy behaviors. The course focuses on behavior change theories and the application of these theories to health promotion.

PHLT 2383 Multicultural Health Issues: 3 semester hours.

The course is designed to address health issues and problems that various ethnic groups face in the United States. Cultural differences in health behaviors, health care access, and promotion and prevention programs are emphasized.

PHLT 3300 Spirituality and Health: 3 semester hours.

This course is to introduce students to the relationship between spirituality, religion, and health in children and adults. Family beliefs and values will be discussed, as well as their role in treatment and healing.

PHLT 3305 Public and Community Health: 3 semester hours.

This course focuses 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.

PHLT 3306 Technology in Health Communication and Technology in Health: 3 semester hours.

The interdisciplinary course introduces students to current tools, technology and applications in the healthcare systems; it allows for critique and analyze of various management programs and technology systems currently available to health care professionals.

PHLT 3308 Women and Men Health: 3 semester hours.

This course will explore health issues affecting both males and females. It is designed to empower males and females to make informed decisions about their health and health care.

PHLT 3310 Scientific Writing: 3 semester hours.

This course aims to demystify the writing process and teach the fundamentals of effective scientific writing. Instruction will focus primarily on the process of writing and publishing scientific manuscripts but grant writing will also be addressed. The course will be presented in two segments: Part (1) teaches students how to write effectively, concisely, and clearly and part (2) takes them through the preparation of an actual scientific manuscript or grant.

Prerequisites: PHLT 1310.

PHLT 3311 Seminar: 3 semester hours.

This course introduces a variety of topic, issues, and skills important to the profession of health. Students will be exposed to health certifications and professional organizations representing the field, and promotion resources.

PHLT 3312 Health Policy & Health Systems: 3 semester hours.

This course presents an introduction to health policy, i.e., the various ways in which the government plays a role in health and in the provision of health care. Health policies can have a profound effect on quality of life. Accessibility, cost, quality of health care; safety of food, water, and environment; the right to make decisions about our health; these issues are vitally tied to health policies.

Prerequisites: PHLT 1310.

PHLT 3313 Public Health Administration: 3 semester hours.

This course is an overview of issues pertaining to local health administration. Emphasis is placed on public sector organizational structures and the challenges they face in changing local and national economies with broad political dimensions. This course will examine the organization and management within public health settings including system influences, leadership, communication, organization behavior, team development, organization design, evaluation, productivity, performance improvement. It will provide an introduction to policy issues in healthcare including state and federal roles in healthcare, the policy process and various healthcare policy and help you explore values and American political processes as they influence health policy.

Prerequisites: PHLT 1310.

PHLT 3314 Public Health Budget & Personnel: 3 semester hours.

This course is an overview of issues pertaining to local health administration. Emphasis is placed on public sector organizational structures and the challenges they face in changing local and national economies with broad political dimensions. This course will examine the organization and management within public health settings including system influences, leadership, communication, organization behavior, team development, organization design, evaluation, productivity, performance improvement. It will provide an introduction to policy issues in healthcare including state and federal roles in healthcare, the policy process and various healthcare policy and help you explore values and American political processes as they influence health policy.

Prerequisites: PHLT 2325.

PHLT 3320 Determinants of Health and Health Disparities: 3 semester hours.

This course examines how social, economic, environmental, and cultural and lifestyle factors contribute to differences in morbidity and mortality among racial and ethnic minorities. Students will also examine social determinants of population health.

Prerequisites: PHLT 1310.

PHLT 3324 Epidemiology: 3 semester hours.

This course provides an introduction to the fundamental definitions, terminology, concepts, methods, and critical thinking used in epidemiology. It will help student to identify and describe patterns of disease occurrence using scientific approach.

Prerequisites: PHLT 1310 or MATH 1103 and (ENGL 1123 or ENGL 1301).

PHLT 3327 Human Behavior Theory and Practice: 3 semester hours.

The purpose of this course is to provide a thorough discussion of the determinants of health-related behavior, health behavior theory (HBT), and how theory can be utilized in health education and behavior research and practice. Emphasis will be placed on how various theories of health behavior are used to design, implement, and evaluate behavior change and health education interventions. This course focuses on the presentation and critical analysis of the role of theory in health promotion and eliciting behavior change, the description of different theories being utilized in behavior change interventions and the application and evaluation of these theories in practice. One course, however, cannot possibly cover all theories relevant to health behavior, health education, and health promotion. The intent of this course, therefore, is not to provide definitive coverage of theory, but rather to introduce and prepare health education and behavior graduate students for continued work using select health behavior theories throughout their professional careers.

Prerequisites: PHLT 1306.

PHLT 3341 Geography of Health/GIS Mapping: 3 semester hours.

This course offers a critical geographic perspective to human health issues, examining disease distributions, how changing relationships between people and their environments (natural, built, and social environments) influence health, and different approaches to the study of health in geography. It also examines how GIS is used throughout the health care industry and public health. Covers environmental health, disease surveillance, and health services research. Students critically review current literature and gain hands-on experience with GIS software.

Prerequisites: PHLT 1306 and PHLT 2325.

PHLT 3342 Nutrition and Disease: 3 semester hours.

This course covers issues in public health related to how nutrition is used for chronic disease prevention. The process of effectively and efficiently identifying, reading, and synthesizing existing sources of reliable information on particular diet disease associations will be covered extensively as will applying this knowledge in a public health context. We will focus on the relation of nutrition to obesity, diabetes, coronary heart disease, hypertension, cancer, addiction-related health problems, mental illness, food-borne and water-borne diseases, and selected additional health outcomes of public health significance in the U.S.

Prerequisites: PHLT 2351.

PHLT 4302 Global Health: 3 semester hours.

This course examines major global health challenges, program and policies. Students will be introduced to a diversity of health and disease. The course will explore global health priorities such as poverty, health inequality, health system reforms, major global initiatives for disease prevention and health promotion.

Prerequisites: PHLT 1310.

PHLT 4307 Community Planning and Assessment: 3 semester hours.

This course 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. (Student will plan and implement a community health program.)

PHLT 4308 Program and Evaluation and Problem Solving: 3 semester hours.

This course focuses on the evaluation of psycho-social-cultural health problems and influences on human behavior and health education strategies and outcome measurement.

PHLT 4313 Research Methodology: 3 semester hours.

This course provides students with fundamental principles of research methodologies relevant to public health research. We will review a range of methodologies, including randomized controlled trials, observational studies, and mixed-method approaches. We will develop enhanced capacity to understand and critically appraise data from scientific studies.

PHLT 4389 Internship Capstone: 3 semester hours.

An internship will consist of meaningful work experience in the public health field. This context of experiential learning is designed for professional development as course content is integrated into work experience. Students also significantly contribute to area organizations through an internship.

Prerequisites: PHLT 1310 and PHLT 3305.

Sport Management Courses***SPMT 1302 Foundations of Sport Management: 3 semester hours.***

This course studies the intricacies involved in the management and leadership of sport programs in health, kinesiology and sports management. Specific management techniques, administration techniques and theories will be studied to provide the foundation for effective leadership and supervision of sport programs. This course will also provide a study of administrative considerations of various sport programs, including aims, policies, principles, staffing, scheduling, finance, facilities and equipment, maintenance, legal considerations, risk management, publicity, and program evaluation.

SPMT 2310 Sport Governance: 3 semester hours.

This course is designed as an in-depth study of major sport governing agencies. Specifically, the students will study the organizational structure, constitutions, policies, procedures, and membership requirements of sport agencies at the state, national, and international levels. The course will also provide an introduction to sport governance, managerial activities related to governance, strategic management and policy development, ethics in sport organizations, scholastic sport, amateur sport in the community, campus recreation, intercollegiate athletics, major games in amateur sport, Olympic Sport, Paralympics sport, North American Professional sport, international professional sport, and the future of sport governance, among other topics of interest relating to sport governance.

Prerequisites: SPMT 1302.

SPMT 4311 Legal Aspects of Sport: 3 semester hours.

This course reviews legal foundations and issues specific to recreation and sport management. A theoretical approach to litigation with emphases on risk management, the safety of participants, and the appropriate ethical behavior of service providers will be introduced. Opportunities for practical experience will be provided.

School of Public and Allied Health, Undergraduate

The School of Public and Allied Health offers undergraduate programs that address the health and wellness needs of diverse communities. The Bureau of Labor Statistics (BLS) projects employment to grow from 162.8 million to 168.8 million jobs from 2019 to 2029. Jobs in the health-related fields will make up a large majority of the projected new jobs. The demand for health-related occupations is projected to grow faster than the average for all occupations at all geographic levels. The School offers a Bachelor of Arts in Public Health and Bachelor of Science degrees in Health, Kinesiology, and Public Health.

Major and Minor Requirements

Major and minor courses in Health and Kinesiology require the attainment of a letter grade equal to or higher than a 'C' for the successful completion of the requirements.

Health, BS

Bachelor of Science in Health Degree Requirements

Bachelor of Science in Health/Non-Teaching Certification (Track 1)

Complete Core Curriculum Listing at <https://catalog.pvamu.edu/universitycorecurriculum/>

Core Curriculum 42 Credit Hours

Communication (Select Two)	6
Mathematics (Select One)	3
Life and Physical Sciences	6
BIOL 2401 Anatomy and Physiology I	
BIOL 2402 Anatomy and Physiology II	
Language, Philosophy, and Culture (Select One)	3
Creative Arts (Select One)	3
American History (Select Two)	6
Government/Political Science	6
POSC 2305 American Government	
POSC 2306 Texas Government	
Social and Behavioral Sciences (Select One)	3
Component Area Option One (Select One)	3
Component Area Option Two (Select One)	3

Other Requirements

BIOL 2401 Anatomy and Physiology I	
BIOL 2402 Anatomy and Physiology II	

Department Core Requirements

Choose one KINE 1000 level course (1 SCH)	4
HKIN 1306 First Aid, Safety and CPR	

Major Core Requirements

HLTH 1302 Human Sexuality	48
HLTH 1306 Environmental Health	
HLTH 1304 Personal Health and Wellness	
HLTH 2303 Aging, Death and Dying	
HLTH 2302 Communicable and Noncommunicable Diseases	
HLTH 3303 Research and Contemporary Issues in Health	
HLTH 3304 Consumer Health	
HLTH 3309 Drugs and Health	
HLTH 3301 Nutrition	
HLTH 3305 Public and Community Health	
HLTH 3300 Health Education for the Elementary School	
HLTH 3311 Overview of the U.S. Healthcare system	
HLTH 4310 Health Administration and Leadership	
HLTH 4306 Health and Communities	
HLTH 4307 Community Health Planning and Assessment	
HLTH 4308 Problem Solving and Evaluation for Community Health Programs	

Electives (Choose 6 SCH from the following)

HLTH 3302 Mental Health Promotion	6
HLTH 3387 Medical Terminology	
HLTH 4305 Health Law and Ethics	
KINE 4619 Internship in Health and Kinesiology	

Minor or Unrestricted Electives	18
Total Hours	120

Bachelor of Science in Health/Teaching Certification (Track 2)

Complete Core Curriculum Listing at <https://catalog.pvamu.edu/universitycorecurriculum/>

Core Curriculum 42 Credit Hours

Communication (Select Two)	6
Mathematics (Select One)	3
Life and Physical Sciences Core	6
BIOL 2401 Anatomy and Physiology I	
BIOL 2402 Anatomy and Physiology II	
Language, Philosophy, and Culture (Select One)	3
Creative Arts (Select One)	3
American History (Select Two)	6
Government/Political Science	6
POSC 2305 American Government	
POSC 2306 Texas Government	
Social and Behavioral Science (Select One)	3
Component Area Option One (Select One)	3
Component Area Option Two (Select One)	3

Other Requirements

BIOL 2401 Anatomy and Physiology I	
BIOL 2402 Anatomy and Physiology II	

Department Core Requirements

Choose one KINE 1000 level course (1 SCH)	
HKIN 1306 First Aid, Safety and CPR	

Major Core Requirements

HLTH 1302 Human Sexuality	
HLTH 1306 Environmental Health	
HLTH 1304 Personal Health and Wellness	
HLTH 2303 Aging, Death and Dying	
HLTH 2302 Communicable and Noncommunicable Diseases	
HLTH 3311 Overview of the U.S. Healthcare system	
HLTH 3304 Consumer Health	
HLTH 3309 Drugs and Health	
HLTH 3301 Nutrition	
HLTH 3305 Public and Community Health	
HLTH 3300 Health Education for the Elementary School	
HLTH 3303 Research and Contemporary Issues in Health	
HLTH 4310 Health Administration and Leadership	
HLTH 4306 Health and Communities	
HLTH 4307 Community Health Planning and Assessment	
HLTH 4308 Problem Solving and Evaluation for Community Health Programs	

Health and Phys Ed Pedagogy (Select 6 SCH from the following)

KINE 2304 Coaching Individual and Dual Sports	
KINE 2306 Outdoor Performance Activities	
KINE 3303 Movement Activities for Elementary Children	
KINE 3306 Theory and Practice of Coaching	
KINE 3365 Motor Learning and Control	
KINE 4307 Secondary Kinesiology	
KINE 4315 Education Preparation	

Health - Concentration

18

CUIN 3300	Educational Foundations
CUIN 3301	Educational Psychology
CUIN 4300	Instructional Planning and Assessment
CUIN 4301	Instructional Methods and Classroom Management
CUIN 4340	Student Teaching/Elementary I
CUIN 4381	Student Teaching Secondary - All Level

Total Hours**120**

Bachelor of Science in Health Non-Teaching Certification Degree Sequence

Core: <https://catalog.pvamu.edu/universitycorecurriculum/> (<https://catalog.pvamu.edu/academicprogramsanddegreeplans/schoolofpahealth/undergrad/hlth/%20https://catalog.pvamu.edu/universitycorecurriculum/>)

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Communication Core		3 Communication Core	3
American History Core		3 American History Core	3
HLTH 1301		3 Component Area Option One Core	3
HLTH 1302		3 HLTH 1304	3
Mathematics Core		3 HLTH 1306	3
Total		15 Total	15

Total Hours: 30

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Life and Physical Sciences Core		4 Life and Physical Sciences Core	4
BIOL 2401		BIOL 2402	
HKIN Any 1000 Level Course		1 HLTH 2303	3
Government/Political Science Core		3 Government/Political Science Core	3
POSC 2305		POSC 2306	
Component Area Option Two Core		3 Creative Arts Core	3
Language, Philosophy, and Culture Core		3 Social and Behavioral Science Core	3
Total		14 Total	16

Total Hours: 30

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Unrestricted Elective or Minor Requirement		3 Unrestricted Elective or Minor Requirement	3
Unrestricted Elective or Minor Requirement		3 Unrestricted Elective or Minor Requirement	3
HLTH 2302		3 HLTH 3301	3
HLTH 3311		3 HLTH 3304	3
HLTH 3303		3 HLTH 3309	3
Total		15 Total	15

Total Hours: 30

Senior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Unrestricted Elective or Minor Requirement		3 HLTH 4307	3
Unrestricted Elective or Minor Requirement		3 HLTH 4306	3
HLTH 3300		3 HLTH 4308	3
HLTH 3305		3 HLTH or KINE Restricted Electives	3

HLTH 4310	3 HLTH or KINE Restricted Electives	3
Total	15 Total	15

Total Hours: 30

Name	Unit
Total Semester Credit Hours: 120	

BS Health Teaching Certification

Core: <https://catalog.pvamu.edu/universitycorecurriculum/> (<https://catalog.pvamu.edu/academicprogramsanddegreeplans/schoolofpahealth/undergrad/hlth/%20https://catalog.pvamu.edu/universitycorecurriculum/>)

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Communication Core		3 Communication Core	3
American History Core		3 American History Core	3
HLTH 1301		3 Component Area Option One Core	3
HLTH 1302		3 HLTH 1304	3
Mathematics Core		3 HLTH 1306	3
Total	15 Total		15

Total Hours: 30

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Life and Physical Sciences Core		4 Life and Physical Sciences Core	4
BIOL 2401		BIOL 2402	
HKIN Any 1000 Level Course		1 HLTH 2303	3
Government/Political Science Core		3 Government/Political Science Core	3
POSC 2305		POSC 2306	
Component Area Option Two Core		3 Creative Arts Core	3
Language, Philosophy, and Culture Core		3 Social and Behavioral Science Core	3
Total	14 Total		16

Total Hours: 30

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
HLTH 3300		3 HLTH 3301	3
HLTH 3305		3 HLTH 3304	3
HLTH 2302		3 HLTH 3309	3
HLTH 3311		3 CUIIN 3300	3
HLTH 3303		3 CUIIN 3301	3
Total	15 Total		15

Total Hours: 30

Senior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
HLTH 4307		3 HLTH 4308	3
HLTH 4306		3 HLTH or KINE Health and Phys Ed Pedagogy Requirement	3
HLTH 4310		3 HLTH or KINE Health and Phys Ed Pedagogy Requirement	3
CUIIN 4300		3 CUIIN 4340	3
CUIIN 4301		3 CUIIN 4381	3
Total	15 Total		15

Total Hours: 30

Name	Unit
Total Semester Credit Hours: 120	

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

BS Health

Degree Skills

1. Develop skills to improve community health
2. Conduct research in their field to improve human health domestically and globally
3. Integrate information from various disciplines

Concentration Skills

1. Teachers certification
2. Time management
3. Public speaking

Co-curricular and Extracurricular Skills

1. Enhanced problem solving and communication skills in health
2. Leadership
3. Teamwork

Kinesiology, BS

Bachelor of Science in Kinesiology Program Requirements

Bachelor of Science in Kinesiology/Teaching Certification (Track 1)

Complete Core Curriculum Listing at <https://catalog.pvamu.edu/universitycorecurriculum/>

Core Curriculum 42 Credit Hours

Communication (Select Two)	6
Mathematics (Select One)	3
Life and Physical Sciences	6
BIOL 2401 Anatomy and Physiology I	
BIOL 2402 Anatomy and Physiology II	
Language, Philosophy, and Culture (Select One)	3
Creative Arts (Select One)	3
American History (Select Two)	6
Government/Political Science	6
POSC 2305 American Government	
POSC 2306 Texas Government	
Social and Behavioral Sciences (Select One)	3
Component Area Option One (Select One)	3
Component Area Option Two	3
HLTH 1304 Personal Health and Wellness	
Other Requirements	2
BIOL 2401 Anatomy and Physiology I	
BIOL 2402 Anatomy and Physiology II	
Department Core Requirements	4
Choose one 1000 HKIN Course (1 SCH)	
HKIN 1306 First Aid, Safety and CPR	

Major Core Requirements	27
KINE 1215	Low Organized Games
KINE 1208	Fundamentals of Human Movement
KINE 1330	Foundation to Kinesiology
DANC 2202	Fundamentals of Dance
KINE 3302	Applied Anatomy and Kinesiology
HKIN 3366	Exercise Physiology
HKIN 4304	Athletic Injuries
KINE 4303	Measurement and Evaluation
KINE 4306	Adapted Physical Activity
KINE 4310	Research Methods
Health and Phys Ed Pedagogy	27
KINE 2304	Coaching Individual and Dual Sports
KINE 2306	Outdoor Performance Activities
HLTH 3300	Health Education for the Elementary School
HLTH 3301	Nutrition
KINE 3306	Theory and Practice of Coaching
KINE 3303	Movement Activities for Elementary Children
KINE 3365	Motor Learning and Control
KINE 4307	Secondary Kinesiology
KINE 4308	Administrative Management of Kinesiology
Professional Education Requirements	18
CUIN 3300	Educational Foundations
CUIN 3301	Educational Psychology
CUIN 4310	Instructional Planning and Assessment
CUIN 4311	Instructional Methodology and Classroom Management
CUIN 4340	Student Teaching/Elementary I
CUIN 4381	Student Teaching Secondary - All Level
Total Hours	120

Bachelor of Science in Kinesiology/Applied Exercise Science (Track 2)

Complete Core Curriculum Listing at <https://catalog.pvamu.edu/universitycorecurriculum/>

Core Curriculum 42 Credit Hours

Communication (Select Two)	6
Mathematics (Select One)	3
Life and Physical Sciences	6
BIOL 2401	Anatomy and Physiology I
BIOL 2402	Anatomy and Physiology II
Language, Philosophy, and Culture (Select One)	3
Creative Arts (Select One)	3
American History (Select Two)	6
Government/Political Science	6
POSC 2305	American Government
POSC 2306	Texas Government
Social and Behavioral Sciences (Select One)	3
Component Area Option One (Select One)	3
Component Area Option Two	3
HLTH 1304	Personal Health and Wellness
Other Requirements	2
BIOL 2401	Anatomy and Physiology I
BIOL 2402	Anatomy and Physiology II
Department Core Requirements	4

Choose one HKIN 1000 level course (1 SCH)

HKIN 1306	First Aid, Safety and CPR	
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Major Core Requirements 27

KINE 1208	Fundamentals of Human Movement	
KINE 1215	Low Organized Games	
KINE 1330	Foundation to Kinesiology	
DANC 2202	Fundamentals of Dance	
KINE 3302	Applied Anatomy and Kinesiology	
HKIN 3366	Exercise Physiology	
HKIN 4304	Athletic Injuries	
KINE 4303	Measurement and Evaluation	
KINE 4306	Adapted Physical Activity	
KINE 4310	Research Methods	

Electives 27

Select 12 SCH from the following:

HKIN 1112	Conditioning and Self Analysis	
KINE 3365	Motor Learning and Control	
PHLT 3320	Determinants of Health and Health Disparities	
BIOL 4201	Medical Terminology	
KINE 4322	Advanced Athletic Injuries	
KINE 4619	Internship in Health and Kinesiology	

Unrestricted Electives (Choose 15 SCH)

Applied Exercise Science 18

KINE 2307	Psycho-Social Aspects of Sport	
KINE 2308	Practicum in Kinesiology and Sport	
HLTH 3301	Nutrition	
KINE 4308	Administrative Management of Kinesiology	
SPMT 4311	Legal Aspects of Sport	
KINE 4323	Fitness Program	

Total Hours 120**Bachelor of Science in Kinesiology/Sport Management (Track 3)**Complete Core Curriculum Listing at <https://catalog.pvamu.edu/universitycorecurriculum/>**Core Curriculum 42 Credit Hours**

Communication (Select Two)		6
Mathematics (Select One)		3
Life and Physical Sciences		6
BIOL 2401	Anatomy and Physiology I	
BIOL 2402	Anatomy and Physiology II	
Language, Philosophy, and Culture (Select One)		3
Creative Arts (Select One)		3
American History (Select Two)		6
Government/Political Science		6
POSC 2305	American Government	
POSC 2306	Texas Government	
Social and Behavioral Sciences (Select One)		3
Component Area Option One (Select One)		3
Component Area Option Two		3
HLTH 1304	Personal Health and Wellness	

Other Requirements 2

BIOL 2401	Anatomy and Physiology I	
BIOL 2402	Anatomy and Physiology II	

Department Requirements	4
Choose one KINE 1000 level course (1 SCH)	
HKIN 1306 First Aid, Safety and CPR	
Major Requirements	27
KINE 1208 Fundamentals of Human Movement	
KINE 1215 Low Organized Games	
KINE 1330 Foundation to Kinesiology	
DANC 2202 Fundamentals of Dance	
KINE 3302 Applied Anatomy and Kinesiology	
HKIN 3366 Exercise Physiology	
HKIN 4304 Athletic Injuries	
KINE 4303 Measurement and Evaluation	
KINE 4306 Adapted Physical Activity	
KINE 4310 Research Methods	
Electives	27
Select 18 SCH from the following:	
KINE 2205 Intramural and Recreational Sports	
KINE 2307 Psycho-Social Aspects of Sport	
KINE 3305 Theory and Practice of Officiating	
KINE 3306 Theory and Practice of Coaching	
KINE 4308 Administrative Management of Kinesiology	
KINE 4619 Internship in Health and Kinesiology	
MGMT 1301 Introduction to Business	
MGMT 2301 Design Thinking	
MGMT 3302 Introduction to Business Analytics	
Unrestricted Electives (Select 9 SCH)	
Sport Management	18
SPMT 1302 Foundations of Sport Management	
KINE 2308 Practicum in Kinesiology and Sport	
SPMT 2310 Sport Governance	
MGMT 2320 Leadership and Ethics	
MRKT 3311 Sports, Entertainment, and Event Marketing	
SPMT 4311 Legal Aspects of Sport	
Total Hours	120

Bachelor of Science in Kinesiology/Non-Teaching Certification (Track 4)

Complete Core Curriculum Listing at <https://catalog.pvamu.edu/universitycorecurriculum/>

Core Curriculum 42 Credit Hours

Communication (Select Two)	6
Mathematics (Select One)	3
Life and Physical Sciences	6
BIOL 2401 Anatomy and Physiology I	
BIOL 2402 Anatomy and Physiology II	
Language, Philosophy, and Culture (Select One)	3
Creative Arts (Select One)	3
American History (Select Two)	6
Government/Political Science	6
POSC 2305 American Government	
POSC 2306 Texas Government	
Social and Behavioral Sciences (Select One)	3
Component Area Option One (Select One)	3
Component Area Option Two	3

HLTH 1304	Personal Health and Wellness	
Other Requirements		2
BIOL 2401 Anatomy and Physiology I		
BIOL 2402 Anatomy and Physiology II		
Department Requirements		4
Choose one KINE 1000 level course (1 SCH)		
HKIN 1306	First Aid, Safety and CPR	
Major Core Requirements		27
KINE 1208	Fundamentals of Human Movement	
KINE 1215	Low Organized Games	
KINE 1330	Foundation to Kinesiology	
DANC 2202	Fundamentals of Dance	
KINE 3302	Applied Anatomy and Kinesiology	
HKIN 3366	Exercise Physiology	
HKIN 4304	Athletic Injuries	
KINE 4303	Measurement and Evaluation	
KINE 4306	Adapted Physical Activity	
KINE 4310	Research Methods	
Electives (Select from the following)		27
HKIN 1112	Conditioning and Self Analysis	
KINE 2307	Psycho-Social Aspects of Sport	
KINE 2308	Practicum in Kinesiology and Sport	
KINE 2304	Coaching Individual and Dual Sports	
KINE 2205	Intramural and Recreational Sports	
KINE 2306	Outdoor Performance Activities	
HLTH 3301	Nutrition	
KINE 3305	Theory and Practice of Officiating	
KINE 3306	Theory and Practice of Coaching	
KINE 3365	Motor Learning and Control	
KINE 4308	Administrative Management of Kinesiology	
KINE 4323	Fitness Program	
KINE 4619	Internship in Health and Kinesiology	
Minor or Unrestricted Electives		18
Total Hours		120

Bachelor of Science in Kinesiology Teaching Certification Degree Sequence

Core: <https://catalog.pvamu.edu/universitycorecurriculum/> (<https://catalog.pvamu.edu/academicprogramsanddegreeplans/schoolofpahealth/undergrad/kine/%20https://catalog.pvamu.edu/universitycorecurriculum/>)

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Communication Core		3 Communication Core	3
American History Core		3 DANC 2202	2
HKIN 1306		3 American History Core	3
Component Area Option Two Core		3 KINE 1208	2
HLTH 1304		KINE 1215	2
Mathematics Core		3 Component Area Option One Core	3
MATH 1314			
Total		15 Total	15

Total Hours: 30

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Life and Physical Sciences Core		4 Life and Physical Sciences Core	4
BIOL 2401		BIOL 2402	
HKIN Any 1000 Level Course		1 KINE 1330	3
Government/Political Science Core		3 Government/Political Science Core	3
POSC 2305		POSC 2306	
KINE 2306		3 Creative Arts Core	3
Language, Philosophy, and Culture Core		3 Social and Behavioral Science Core	3
Total		14 Total	16

Total Hours: 30**Junior**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
KINE 3306		3 KINE 3303	3
HKIN 3366		3 KINE 3365	3
KINE 2304		3 HLTH 3301	3
KINE 3302		3 CUIIN 3300	3
HLTH 3300		3 CUIIN 3301	3
Total		15 Total	15

Total Hours: 30**Senior**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
KINE 4304		3 KINE 4303	3
KINE 4306		3 KINE 4307	3
KINE 4310		3 KINE 4308	3
CUIIN 4310		3 CUIIN 4340	3
CUIIN 4311		3 CUIIN 4381	3
Total		15 Total	15

Total Hours: 30

Name	Unit
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Total Semester Credit Hours: 120

BS Kinesiology Applied Exercise Science

Core: <https://catalog.pvamu.edu/universitycorecurriculum/> (<https://catalog.pvamu.edu/academicprogramsanddegreeplans/schoolofpahealth/undergrad/kine/%20https://catalog.pvamu.edu/universitycorecurriculum/>)

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Communication Core		3 Communication Core	3
American History Core		3 American History Core	3
HKIN 1306		3 DANC 2202	2
Component Area Option Two Core		3 KINE 1208	2
HLTH 1304		KINE 1215	2
Mathematics Core		3 Component Area Option One Core	3
MATH 1314			
Total		15 Total	15

Total Hours: 30

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Life and Physical Sciences Core		4 Life and Physical Sciences Core	4
BIOL 2401		BIOL 2402	
HKIN Any 1000 Level Course		1 KINE 1330	3
Government/Political Science Core		3 Government/Political Science Core	3
POSC 2305		POSC 2306	
Restricted Elective		3 Creative Arts Core	3
Language, Philosophy, and Culture Core		3 Social and Behavioral Science Core	3
Total		14 Total	16

Total Hours: 30**Junior**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
KINE 2307		3 HLTH 3301	3
Unrestricted Elective		3 KINE 4308	3
KINE 2308		3 Restricted Elective (1-3 SCH)	3
KINE 3302		3 Unrestricted Elective	3
Restricted Elective (1-3 SCH)		1 Unrestricted Elective	3
Restricted Elective (1-3 SCH)		2	
Total		15 Total	15

Total Hours: 30**Senior**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
KINE 4306		3 KINE 4303	3
KINE 4323		3 KINE 4304	3
HKIN 3366		3 KINE 4310	3
SPMT 4311		3 Unrestricted Elective	3
Restricted Elective (1-3 SCH)		3 Unrestricted Elective	3
Total		15 Total	15

Total Hours: 30

Name	Unit
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Total Semester Credit Hours: 120

BS Kinesiology Sport Management

Core: <https://catalog.pvamu.edu/universitycorecurriculum/> (<https://catalog.pvamu.edu/academicprogramsanddegreeplans/schoolofpahealth/undergrad/kine/%20https://catalog.pvamu.edu/universitycorecurriculum/>)

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Communication Core		3 Communication Core	3
American History Core		3 American History Core	3
HKIN 1306		3 DANC 2202	2
Component Area Option Two Core		3 KINE 1208	2
HLTH 1304		KINE 1215	2
Mathematics Core		3 Component Area Option One Core	3
MATH 1314			
Total		15 Total	15

Total Hours: 30

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Life and Physical Sciences Core		4 Life and Physical Sciences Core	4
BIOL 2401		BIOL 2402	
HKIN Any 1000 Level Course		1 KINE 1330	3
Government/Political Science Core		3 Government/Political Science Core	3
POSC 2305		POSC 2305	
Restricted Elective		3 Creative Arts Core	3
Language, Philosophy, and Culture Core		3 Social and Behavioral Science Core	3
Total		14 Total	16

Total Hours: 30**Junior**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
KINE 2308		3 SPMT 2310	3
KINE 3302		3 MGMT 2320	3
SPMT 1302		3 Restricted Elective (1-3 SCH)	3
Unrestricted Elective		3 Unrestricted Elective	3
Restricted Elective (1-3 SCH)		1 Unrestricted Elective	3
Restricted Elective (1-3 SCH)		2	
Total		15 Total	15

Total Hours: 30**Senior**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
KINE 4306		3 KINE 4303	3
MRKT 3311		3 KINE 4304	3
SPMT 4311		3 KINE 4310	3
HKIN 3366		3 Restricted Elective	3
Restricted Elective		3 Restricted Elective	3
Total		15 Total	15

Total Hours: 30

Name	Unit
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Total Semester Credit Hours: 120

BS Kinesiology Non-Teaching Certification

Core: <https://catalog.pvamu.edu/universitycorecurriculum/> (<https://catalog.pvamu.edu/academicprogramsanddegreeplans/schoolofpahealth/undergrad/kine/%20https://catalog.pvamu.edu/universitycorecurriculum/>)

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Communication Core		3 Communication Core	3
American History Core		3 American History Core	3
HKIN 1306		3 DANC 2202	2
Mathematics Core		3 KINE 1208	2
MATH 1314		KINE 1215	2
Restricted Elective (1-3 SCH)		3 Component Area Option One Core	3
Total		15 Total	15

Total Hours: 30

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours
Life and Physical Sciences Core		4 Life and Physical Sciences Core	4
BIOL 2401		BIOL 2402	
HKIN Any 1000 Level Course		1 KINE 1330	3
Government/Political Science Core		3 Government/Political Science Core	3
POSC 2305		POSC 2306	
Component Area Option Two Core		3 Creative Arts Core	3
HLTH 1304		Social and Behavioral Science Core	3
Language, Philosophy, and Culture Core		3	
Total		14 Total	16

Total Hours: 30**Junior**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
KINE 3302		3 Unrestricted Elective or Minor Requirement	3
Unrestricted Elective or Minor Requirement		3 Unrestricted Elective or Minor Requirement	3
Unrestricted Elective or Minor Requirement		3 Restricted Elective (1-3 SCH)	3
Restricted Elective (1-3 SCH)		3 Restricted Elective (1-3 SCH)	3
Restricted Elective (1-3 SCH)		3 Restricted Elective (1-3 SCH)	3
Total		15 Total	15

Total Hours: 30**Senior**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
HKIN 3366		3 KINE 4303	3
KINE 4306		3 KINE 4304	3
Unrestricted Elective or Minor Requirement		3 KINE 4310	3
Unrestricted Elective or Minor Requirement		3 Restricted Elective (1-3 SCH)	3
Restricted Elective (1-3 SCH)		3 Restricted Elective (1-3 SCH)	3
Total		15 Total	15

Total Hours: 30

Name	Unit
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Total Semester Credit Hours: 120

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

BS Kinesiology**Degree Skills**

1. Analytical thinking to solve discipline-specific issues and challenges
2. Effective use of technology to access, apply, and present discipline-related knowledge
3. Understand the scientific basis for human movement, exercise physiology and adaptations, and biomechanics

Concentration Skills

1. Develop constructive and cooperative working relationships
2. Master in-depth concentration related knowledge
3. Demonstration of ethical and professional standards related to teaching, exercise science, and sport management

Co-curricular and Extracurricular Skills

1. Ability to work with faculty on research interests
2. Develop leadership characteristics through extracurricular engagement
3. Ability to understand and communicate with others from varying cultures

Public Health, BA & BS

Bachelor of Arts in Public Health Degree Requirements

Complete Core Curriculum Listing at <https://catalog.pvamu.edu/universitycorecurriculum/>

Core Curriculum 42 Credit Hours

Communication		6
ENGL 1301	Freshman Composition I	
ENGL 1302 or ENGL 2311	Freshman Composition II Technical and Business Writing	
Mathematics (Select One)		3
Life and Physical Sciences (Select Two)		6
Language, Philosophy, and Culture (Select One)		3
Creative Arts (Select One)		3
American History (Select Two)		6
Government/Political Science		6
POSC 2305	American Government	
POSC 2306	Texas Government	
Social and Behavioral Sciences (Select One)		3
Component Area Option One (Select One)		3
Component Area Option Two (Select One)		3

Major Requirements

PHLT 1306	Environmental Health	3
PHLT 1310	Foundation to Public Health	3
PHLT 1320	Principles of Health Promotion and Disease Prevention	3
PHLT 2325	Biostatistics	3
PHLT 3305	Public and Community Health	3
PHLT 3312	Health Policy & Health Systems	3
PHLT 3313	Public Health Administration	3
PHLT 3320	Determinants of Health and Health Disparities	3
PHLT 3324	Epidemiology	3
PHLT 3327	Human Behavior Theory and Practice	3
PHLT 4302	Global Health	3
PHLT 4307	Community Planning and Assessment	3
PHLT 4308	Program and Evaluation and Problem Solving	3
PHLT 4313	Research Methodology	3
PHLT 4389	Internship Capstone	3

Prescribed Electives (Select 15 SCH)

PSYC 2301	General Psychology	15
BIOL 1501	General Biology	
BIOL 3401 or BIOL 2401	Human Physiology and Anatomy Anatomy and Physiology I	
BIOL 1307	General Microbiology	
PHLT 3341	Geography of Health/GIS Mapping	

Minor **18**

Total Hours **120**

Bachelor of Science in Public Health Degree Requirements

Complete Core Curriculum Listing at <https://catalog.pvamu.edu/universitycorecurriculum/>

Core Curriculum 42 Credit Hours

Communication		6
ENGL 1301	Freshman Composition I	
ENGL 1302	Freshman Composition II	
or ENGL 2311	Technical and Business Writing	
Mathematics (Select One)		3
Life and Physical Sciences (Select Two)		6
Language, Philosophy, and Culture (Select One)		3
Creative Arts (Select One)		3
American History (Select Two)		6
Government/Political Science		6
POSC 2305	American Government	
POSC 2306	Texas Government	
Social and Behavioral Sciences (Select One)		3
Component Area Option One (Select One)		3
Component Area Option Two (Select One)		3

Major Requirements

PHLT 1306	Environmental Health	
PHLT 1310	Foundation to Public Health	
PHLT 1320	Principles of Health Promotion and Disease Prevention	
PHLT 2325	Biostatistics	
PHLT 3305	Public and Community Health	
PHLT 3312	Health Policy & Health Systems	
PHLT 3313	Public Health Administration	
PHLT 3320	Determinants of Health and Health Disparities	
PHLT 3324	Epidemiology	
PHLT 3327	Human Behavior Theory and Practice	
PHLT 4302	Global Health	
PHLT 4307	Community Planning and Assessment	
PHLT 4308	Program and Evaluation and Problem Solving	
PHLT 4313	Research Methodology	
PHLT 4389	Internship Capstone	

Prescribed Electives (Choose 18 SCH)

PHLT 2351	Advanced Health Promotion and Disease Prevention	
PHLT 2383	Multicultural Health Issues	
PHLT 3300	Spirituality and Health	
PHLT 3306	Technology in Health Communication and Technology in Health	
PHLT 3308	Women and Men Health	
PHLT 3310	Scientific Writing	
PHLT 3311	Seminar	
PHLT 3314	Public Health Budget & Personnel	
PHLT 3341	Geography of Health/GIS Mapping	
PHLT 3342	Nutrition and Disease	

Unrestricted Electives

15

Total Hours

120

Bachelor of Arts in Public Health Degree Sequence

Core: <https://catalog.pvamu.edu/universitycorecurriculum/> (<https://catalog.pvamu.edu/universitycorecurriculum/>)

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
PHLT 1306		3 PHLT 1320	3
PHLT 1310		3 Communication Core	3
Communication Core		3 Mathematics Core	3
ENGL 1301		Government/Political Science Core	3
Government/Political Science Core		3 POSC 2306	
POSC 2305		Component Area Option One Core	3
Social and Behavioral Sciences Core		3	
Total		15 Total	15

Total Hours: 30

Sophomore

Fall - Semester 1	Hours	Spring - Semester 2	Hours
PHLT 2325		3 PHLT 3320	3
PHLT 3312		3 PHLT 3327	3
Life and Physical Sciences Core		3 Life and Physical Sciences Core	3
American History Core		3 American History Core	3
Component Area Option Two Core		3 Creative Arts Core	3
Total		15 Total	15

Total Hours: 30

Junior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
PHLT 3313		3 PHLT 3305	3
PHLT 3324		3 PHLT 4302	3
PHLT 4307		3 PHLT 4308	3
Language, Philosophy, and Culture Core		3 Prescribed Elective of Minor	3
Prescribed Elective or Minor		3 Prescribed Elective or Minor	3
Total		15 Total	15

Total Hours: 30

Senior

Fall - Semester 1	Hours	Spring - Semester 2	Hours
PHLT 4313		3 PHLT 4389	3
Prescribed Elective or Minor		3 Prescribed Elective or Minor	3
Prescribed Elective or Minor		3 Prescribed Elective or Minor	3
Prescribed Elective or Minor		3 Prescribed Elective or Minor	3
Prescribed Elective or Minor		3 Prescribed Elective or Minor	3
Total		15 Total	15

Total Hours: 30

Name	Unit
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Total Semester Credit Hours: 120

Bachelor of Science in Public Health Degree Sequence

Core: <https://catalog.pvamu.edu/universitycorecurriculum/> (<https://catalog.pvamu.edu/universitycorecurriculum/>)

Freshman

Fall - Semester 1	Hours	Spring - Semester 2	Hours
PHLT 1306		3 PHLT 1320	3
PHLT 1310		3 Communication Core	3
Communication Core		3 Mathematics Core	3

ENGL 1301	Government/Political Science Core	3
Government/Political Science Core	3 POSC 2306	
POSC 2305	Social and Behavioral Sciences Core	3
Language, Philosophy, and Culture Core	3	
Total	15 Total	15

Total Hours: 30**Sophomore**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
PHLT 2325		3 PHLT 3320	3
PHLT 3312		3 PHLT 3327	3
Life and Physical Sciences Core		3 Life and Physical Sciences Core	3
American History Core		3 American History Core	3
Component Area Option One Core		3 Creative Arts Core	3
Total	15 Total		15

Total Hours: 30**Junior**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
PHLT 3305		3 PHLT 4302	3
PHLT 3313		3 PHLT 4308	3
PHLT 3324		3 Component Area Option Two Core	3
PHLT 4307		3 Prescribed or Unrestricted Elective	3
Prescribed or Unrestricted Elective		3 Prescribed or Unrestricted Elective	3
Total	15 Total		15

Total Hours: 30**Senior**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
PHLT 4313		3 PHLT 4389	3
Prescribed or Unrestricted Elective		3 Prescribed or Unrestricted Elective	3
Prescribed or Unrestricted Elective		3 Prescribed or Unrestricted Elective	3
Prescribed or Unrestricted Elective		3 Prescribed or Unrestricted Elective	3
Prescribed or Unrestricted Elective		3 Prescribed or Unrestricted Elective	3
Total	15 Total		15

Total Hours: 30

Name	Unit
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Total Semester Credit Hours: 120

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

BA and BS in Public Health***Degree Skills***

1. Knowledge of statistical software, social media platforms, and health information management systems
2. Math and statistical skills to understand the different measurement scales, the implications of research methods, and the impacts of descriptive and inferential methodologies
3. Ability to recognize system-level properties and analyze dynamic interactions between groups, organizations, communities, and environments
4. Collecting and organizing data, applying strategy-based communication principles in different environments, and collaborating with informatics specialists to evaluate public health programs

Concentration Skills

1. Strong communication skills help understand core values, efficiently interact with co-workers, and strategically design information exchange processes
2. Interpersonal skills in interacting with diverse individuals and communities to influence intended public health outcomes
3. Ability to explain how professional practices impact equity and accountability

Co-curricular and Extracurricular Skills

1. Ability to create and communicate a shared vision for a positive future
2. Significant change and process management skills and ability to champion solutions to community challenges and organizational issues

School of Public and Allied Health, Graduate

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.

Purpose and Goals

The graduate programs in the School of Public and Allied Health are designed to meet the professional needs and interests of students who wish to pursue a Master of Science or a Master of 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.

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

Continual matriculation at PVAMU requires that no more than two C's shall be earned in a graduate degree program. A student who has earned more than two C grades will be automatically dismissed from the graduate program.

NOTE: No grade of "C" or below will be accepted toward certification.

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.

Health, MED

Master of Education in Health Degree Program Requirements

Common Core

PHED 5313	Physical Education Curriculum	3
EDFN 5310	Foundations of Educational Research	3
EDFN 5311	Psychology of Learning and Development	3
EDFN 5312	Socio-Cultural Issues in Education	3

Program Concentration

HLTH 5306	Human Behavior and Health Education	3
HLTH 5317	Nutrition and the Environment	3
HLTH 5319	Community Health	3

PHED 5330	Research Methods	3
Research and Resource		
EDFN 5392	Master's Seminar	3
Select three of the following:		9
HLTH 5318	Contemporary Health	
HLTH 5304	Alcohol and Drugs	
HLTH 5307	Epidemiology and Diseases	
HLTH 5313	Seminar- Selected Topics	
HLTH 5314	Medical Foundations for Health Professions	
Total Hours		36

¹ Requires Department Administration Approval

Master of Education in Health Degree Sequence

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
HLTH 5306		3 EDFN 5310	3
PHED 5313		3 HLTH 5317	3
HLTH Elective		3 HLTH Elective	3
Total		9 Total	9
Total Hours: 18			

Second Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
HLTH 5319		3 EDFN 5392	3
EDFN 5311		3 PHED 5330	3
HLTH Elective		3 EDFN 5312	3
Total		9 Total	9
Total Hours: 18			

Name	Unit
Total Semester Credit Hours: 36	

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

MED Health

Degree Skills

1. Investigate and describe the determinants and distribution of disease
2. Investigate and describe the determinants of disability or health outcomes
3. Analyze public health information and evaluate results to solve problems

Co-curricular and Extracurricular Skills

1. Identify the stakeholders and diverse viewpoints related to public health challenges
2. Prepare concise material on various health-related topics to healthcare practitioners, policy makers, and the public
3. Communicate and explain epidemiology and public health-related research to diverse audiences

Health, MS

Master of Science in Health Degree Program Requirements

Common Core

PHED 5313	Physical Education Curriculum	3
EDFN 5310	Foundations of Educational Research	3
EDFN 5311	Psychology of Learning and Development	3
EDFN 5312	Socio-Cultural Issues in Education	3

Program Concentration

HLTH 5306	Human Behavior and Health Education	3
HLTH 5317	Nutrition and the Environment	3
HLTH 5319	Community Health	3
PHED 5330	Research Methods	3

Research and Resource

EDFN 5314	Advanced Educational Statistics (Adv Educ Stat)	3
EDFN 5390	Thesis Research	3

Select two of the following: 6

HLTH 5304	Alcohol and Drugs	
HLTH 5307	Epidemiology and Diseases	
HLTH 5313	Seminar- Selected Topics	
HLTH 5314	Medical Foundations for Health Professions	
HLTH 5318	Contemporary Health	

Total Hours 36

Master of Science in Health Degree Sequence

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
HLTH 5306		3 EDFN 5310	3
PHED 5313		3 HLTH 5317	3
HLTH Elective		3 HLTH Elective	3
Total		9 Total	9

Total Hours: 18

Second Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
EDFN 5314		3 PHED 5330	3
HLTH 5319		3 EDFN 5312	3
EDFN 5311		3 EDFN 5390	3
Total		9 Total	9

Total Hours: 18

Name	Unit
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Total Semester Credit Hours: 36

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

MS Health

Degree Skills

1. Investigate and describe the determinants and distribution of disease
2. Investigate and describe the determinants of disability or health outcomes
3. Analyze public health information and evaluate results to solve problems

Co-curricular and Extracurricular Skills

1. Identify the stakeholders and diverse viewpoints related to public health challenges
2. Prepare concise material on various health-related topics to healthcare practitioners, policy makers, and the public
3. Communicate and explain epidemiology and public health-related research to diverse audiences

Physical Education, MED

Master of Education in Physical Education Degree Program Requirements

Common Core

PHED 5313	Physical Education Curriculum	3
EDFN 5310	Foundations of Educational Research	3
EDFN 5311	Psychology of Learning and Development	3
EDFN 5312	Socio-Cultural Issues in Education	3

Program Concentration

HLTH 5317	Nutrition and the Environment	3
PHED 5314	Sociology of Sport	3
PHED 5330	Research Methods	3
PHED 5350	Teaching Physical Education	3

Research and Resource

EDFN 5392	Master's Seminar	3
Select three of the following:		9
HLTH 5304	Alcohol and Drugs	
HLTH 5307	Epidemiology and Diseases	
HLTH 5313	Seminar- Selected Topics	
HLTH 5314	Medical Foundations for Health Professions	
HLTH 5318	Contemporary Health	

Total Hours		36
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Master of Education in Physical Education Degree Sequence

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
HLTH 5317		3 EDFN 5310	3
PHED 5313		3 HLTH Elective	3
HLTH Elective		3 PHED 5314	3
Total		9 Total	9

Total Hours: 18**Second Year**

Fall - Semester 1	Hours	Spring - Semester 2	Hours
EDFN 5392		3 HLTH Elective	3
EDFN 5311		3 EDFN 5312	3
PHED 5330		3 PHED 5350	3
Total		9 Total	9

Total Hours: 18

Name	Unit
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Total Semester Credit Hours: 36

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

MED Physical Education

Degree Skills

1. Collaboration and teamwork in physical activity and sports
2. Teaching and presentation to diverse populations
3. Mentorship

Co-curricular and Extracurricular Skills

1. Research methodology
2. Data collection
3. Writing for publication

Physical Education, MS

Master of Science in Physical Education Degree Program Requirements

Major Core Requirements

PHED 5313	Physical Education Curriculum	3
EDFN 5310	Foundations of Educational Research	3
EDFN 5311	Psychology of Learning and Development	3
EDFN 5312	Socio-Cultural Issues in Education	3

Program Concentration

HLTH 5317	Nutrition and the Environment	3
PHED 5314	Sociology of Sport	3
PHED 5330	Research Methods	3
PHED 5350	Teaching Physical Education	3

Research and Resource

EDFN 5314	Advanced Educational Statistics (Adv Educ Stat)	3
EDFN 5390	Thesis Research	3

Select two of the following:		6
HLTH 5304	Alcohol and Drugs	
HLTH 5307	Epidemiology and Diseases	
HLTH 5313	Seminar- Selected Topics	
HLTH 5314	Medical Foundations for Health Professions	
HLTH 5318	Contemporary Health	

Total Hours

36

Master of Science in Physical Education Degree Sequence

First Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
PHED 5313		3 EDFN 5310	3
HLTH 5317		3 PHED 5314	3
HLTH Elective		3 HLTH Elective	3
Total		9 Total	9

Total Hours: 18

Second Year

Fall - Semester 1	Hours	Spring - Semester 2	Hours
EDFN 5311		3 EDFN 5312	3
PHED 5330		3 PHED 5350	3
EDFN 5314		3 EDFN 5390	3
Total		9 Total	9

Total Hours: 18

Name	Unit
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Total Semester Credit Hours: 36

Marketable Skills

Marketable skills, as defined by the Texas Higher Education Coordinating Board's 60x30TX Plan (<http://www.60x30tx.com/>), include interpersonal, cognitive, and applied skill areas, are valued by employers, and can be either primary or complementary to a major. Marketable skills are acquired by students through education, including curricular, co-curricular, and extracurricular activities.

MS Physical Education***Degree Skills***

1. Collaboration and teamwork in physical activity and sports
2. Teaching and presentation to diverse populations
3. Mentorship

Co-curricular and Extracurricular Skills

1. Research methodology
2. Data collection
3. Writing for publication

Distance Learning

Mission of Distance Education

In keeping with the University's Values including but not limited to, access and quality, the Center for Instructional Innovation and Technology Services (CIITS) supports student learning through eCourses (Canvas) for online, hybrid and web-assist course delivery. We support NorthSTAR and TTVN Telecommunications Networks for video course content delivery with 20 sites on the main campus plus 15 at the Northwest Center and the College of Nursing in the Texas Medical Center in Houston Texas. The Center for Instructional Innovation and Technology Services also administers the University e-portfolio and plagiarism detection services. The Center for Instructional Innovation and Technology Services' role in technology use is discussed fully in SACSCOC Federal Requirement Narratives 4.8.

More information on Distance Learning: <https://www.pvamu.edu/dlearning/>

University Accreditation

Institutional

University (Regional Accreditation) Agency: Southern Association of Colleges and Schools Commission on Colleges, Inc. (SACSCOC)

Prairie View A&M University is accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) to award baccalaureate, masters, and doctorate degrees. Questions about the accreditation of Prairie View A&M University may be directed in writing to the Southern Association of Colleges and Schools Commission on Colleges at 1866 Southern Lane, Decatur, GA 30033-4097, by calling (404) 679-4500, or by using information available on SACSCOC's website (www.sacscoc.org (<http://www.sacscoc.org/>)).

More on the University's Accreditation: <https://www.pvamu.edu/accreditations/>

University Core Curriculum

The Core Curriculum

The central and essential mission of the Prairie View A&M University Core Curriculum is to develop in each undergraduate student the capability to perform effectively in academic and professional settings. The program stresses communication and critical thinking skills necessary for outstanding performance in a multi-faceted, modern, and changing society.

All degree programs include 42 semester hours of course work from approved areas of study recognized as the required general education program. Listed in the right column are the equivalent courses that may be transferred from Texas community and junior colleges as approved by the Texas Higher Education Coordinating Board.

Through the Core Curriculum, students will prepare for contemporary challenges by developing and demonstrating the following core objectives:

- (A) **Critical Thinking Skills:** to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information;
- (B) **Communication Skills:** to include effective development, interpretation and expression of ideas through written, oral and visual communication;
- (C) **Empirical and Quantitative Skills:** to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions;
- (D) **Teamwork:** to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal;
- (E) **Personal Responsibility:** to include the ability to connect choices, actions and consequences to ethical decision-making; and
- (F) **Social Responsibility:** to include intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities.

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.

Core Curriculum Course Titles

COMMUNICATION (010)		6
ENGL 1301	Freshman Composition I	
ENGL 1302	Freshman Composition II	
ENGL 2311	Technical and Business Writing	
MATHEMATICS (020)		3
MATH 1314	College Algebra	
MATH 1316	Trigonometry	
MATH 1324	Finite Mathematics	
MATH 1332	Contemporary College Algebra	
MATH 1511	College Algebra and Trigonometry	
MATH 2413	Calculus with Analytic Geometry I	
PSYC 2317	Statistical Methods in Psychology	
LIFE AND PHYSICAL SCIENCES (030)		6
BIOL 1308	Biology for Non-Science Major I	
BIOL 1309	Biology for Non-Science Majors II	
BIOL 2401	Anatomy and Physiology I	
BIOL 2402	Anatomy and Physiology II	
CHEM 1303	General Inorganic Chemistry I	
CHEM 1306	Introductory Chemistry I	
CHEM 1311	General Chemistry I	
PHSC 1315	Physical Science I	
PHSC 1317	Physical Science II	
PHYS 1301	General Physics I	
PHYS 1302	General Physics II	
PHYS 2325	University Physics I	
PHYS 2326	University Physics II	
LANGUAGE, PHILOSOPHY, AND CULTURE (040)		3

ARCH 1301	Architectural History I	
ARCH 1302	History of Architecture II	
ARTS 1303	Art History I (Prehistoric to the 14th Century)	
ARTS 1304	Art History II (14th century to the present)	
ENGL 2331	Survey of World Literature	
ENGL 2334	Studies in Literature	
ENGL 2341	Introduction to Literature	
HUMA 1301	Introduction to Humanities	
HUMA 1305	Survey of Mexican-American Culture	
PHIL 2303	Critical Thinking	
PHIL 2306	Ethics	
SPAN 2311	Intermediate Spanish I	
SPAN 2312	Intermediate Spanish II	
CREATIVE ARTS (050)		3
ARCH 1303	Architectural Design I	
ARTS 1301	Art Appreciation	
ARTS 2328	African American Art	
COMM 2300	Media Literacy	
DRAM 1310	Introduction to Theatre	
DRAM 2322	African American Theatre II	
HCOL 1321	Honors Colloquium II	
MUSC 1303	Fundamentals of Music	
MUSC 1306	Music in Contemporary Life	
MUSC 2333	Afro-American Music	
MUSC 2334	Survey of World Music	
AMERICAN HISTORY (060)		6
HIST 1301	United States History I	
HIST 1302	United States History II	
HIST 2301	Texas History	
GOVERNMENT/POLITICAL SCIENCE (070)		6
POSC 2305	American Government	
POSC 2306	Texas Government	
SOCIAL AND BEHAVIORAL SCIENCES (080)		3
AFAM 1301	Race Class and Gender in America	
AGRI 1330	Land Grant System and Global Food Security	
CHEG 2308	Engineering Economics	
CRIJ 1301	Introduction to Criminal Justice	
CRIJ 1307	Crime in America	
ECON 1301	Fundamentals of Economics in a Global Society	
ECON 2301	Principles of Macroeconomics	
ECON 2302	Principles of Microeconomics	
FINA 2313	Financial Planning from a Global Perspective	
GEOG 1302	Introduction to Human Geography	
HDFM 2351	Childhood Disorders	
HDFM 2353	The Contemporary Family in Cross-Cultural Perspective	
HDFM 2355	Human Development: Life Span	
HIST 2321	World Civilizations I	
HIST 2322	World Civilizations II	
MGMT 2326	Leadership in a Global Environment	
POSC 2321	Blacks and the American Political System	
POSC 2350	Global Issues	
PSYC 2301	General Psychology	

PSYC 2308	Child Psychology	
PSYC 2316	Psychology of Personality	
SOCG 1301	General Sociology	
SOCG 1306	Social Problems	
SOCG 2319	Sociology of Minorities	
COMPONENT AREA OPTION ONE (Global Awareness - 090) Select one course from this list not completed for the Social and Behavior area above		6
AGRI 1330	Land Grant System and Global Food Security	
CHEG 2316	Ethical Engineering in a Global Society	
CURR 2300	Global Influences on Teacher Education	
CVEG 2304	Global Development Issues	
ECON 1301	Fundamentals of Economics in a Global Society	
FINA 2313	Financial Planning from a Global Perspective	
HIST 2321	World Civilizations I	
HIST 2322	World Civilizations II	
MGMT 2326	Leadership in a Global Environment	
POSC 2350	Global Issues	
SOCG 1306	Social Problems	
COMPONENT AREA OPTION TWO (090)		
ARCH 1327	Multimedia Digital Application	
COMM 1311	Introduction to Speech Communication	
COMM 1318	Interpersonal Communication	
COMP 1300	Digital Communication	
CURR 1300	Principles of Effective Learning	
HLTH 1304	Personal Health and Wellness	
MISY 1305	Business Computer Applications	

Total Hours
42

Emeriti/Emerita

Presidents Emeriti

Alvin I. Thomas, Ph.D., 1966-1982
Charles A. Hines, Ph.D., 1994-2002
George C. Wright, Ph.D., 2003-2017

Provost Emerita

E. Joahanne Thomas-Smith, Ed.D
Provost Emerita

Faculty and Staff Emeritus

Marion Henry, Ph.D.
University Marshall Emeritus

Benny L. Lockett, Associate Administrator Emeritus
Cooperative Extension Program

Edward W. Martin, Ph.D., Professor and Dean Emeritus
Brailsford College of Arts and Sciences

Hylton G. McWhinney, Professor Emeritus
Brailsford College of Arts and Sciences

Deland J. Myers, Professor Emeritus
College of Agriculture and Human Sciences

Louis C. Nuti, Research Scientist Emeritus
College of Agriculture and Human Sciences

Freddie Richards, Professor Emeritus
College of Agriculture and Human Sciences

Matthew N. O. Sadiku, Professor Emeritus
Roy G. Perry College of Engineering

Victor Stanley, Professor Emeritus
College of Agriculture and Human Sciences

Willie F. Trotty, Professor Emeritus
Whitlowe R. Green College of Education

John Williams, Professor Emeritus
Brailsford College of Arts and Sciences

Financial Aid at PVAMU

Student Financial Aid & Scholarships

Securing the Future

The return on investment from a college education cannot be beaten, however, increasing costs associated with higher education requires a major commitment from students and their families. The Office for Financial Aid and Scholarships works to ensure that students are able to achieve their educational goals by offering a wide range of resources and information. Grants, work-study, student and parent loans, scholarships, and non-resident tuition and fee waivers are used to develop financial aid packages for students.

Financial Aid at PVAMU <https://www.pvamu.edu/faid/>

Tuition and Fee Rates

Treasury Services is a subdivision of Financial Management Services which reports directly to the Office of Business Affairs. The goal of Treasury Services is to provide excellent customer service to our students, faculty, staff, and outside constituents with a great deal of professionalism.

We strive to remain in compliance with all laws, policies, rules, and regulations on all levels of its business functions. Treasury Services manages the University's Accounts Receivables and Cashiering section. We assist students with their tuition & fee accounts, issue student refunds, billing statements, 1098-T forms and receive and manage all incoming funds for the University. We hope that the information on this page will help answer all of your questions and/or address your needs.

Review Tuition and Fee Rates: <https://www.pvamu.edu/fmsv/treasury-services/>

Office Of Academic Engagement And Student Success

Student Success

PVAMU is not only an institution where students come to focus on an academic major that will shape their futures; it is also a place where students get the benefit of a unique college experience.

Learn more about Student Success: <https://www.pvamu.edu/student-success/>.

Co-requisite Courses and New Student Experience Courses

ENGL 0111	Integrated Reading & Writing Review Skills	1
MATH 0132	Comprehensive Math Skills for Contemporary Algebra	1
MATH 0135	Comprehensive Math Skills for College Algebra	1
PSYC 0134	Math Skills Statistics	1
PVEX 1000	Freshman Experience Course	0
PVEX 3100	Transfer Experience Course	1

Student Affairs

The Vision and Mission of Student Affairs

PVAMU's Student Affairs envisions all graduates as fully prepared for their chosen career and life's pursuits, and to impact the world. Harnessing the mission of the university Student Affairs seeks to provide a transformative co-curricular student experience that is skills and values-based, comprehensive, and global.

Access Student Affairs: <https://www.pvamu.edu/sa/>

University Courses

Accounting (ACCT)

Courses

ACCT 2301 Principles of 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 2302 Principles of 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 2301 or ACCT 2113.

ACCT 3321 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 2302 or ACCT 2123.

ACCT 3322 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 3321 or ACCT 3213.

ACCT 3324 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 2302 or ACCT 2123.

ACCT 3331 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 2302 or 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 or ACCT 2302.

ACCT 3334 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 3339 Accounting 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: ACCT 3322 or ACCT 3223.

ACCT 3399 Independent Study in Accounting: 3 semester hours.

Supervised reading, research, and/or field work on selected topics in accounting.

Prerequisites: ACCT 2302 or ACCT 2123.

ACCT 4321 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 3322 or ACCT 3223.

ACCT 4322 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 3322 or ACCT 3223.

ACCT 4325 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 3321 or ACCT 3213.

ACCT 4331 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 2302 or ACCT 2123) and (MISY 2301 or MISY 2013).

ACCT 4332 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 3322 or ACCT 3223.

ACCT 4333 Accounting Data Analytics: 3 semester hours.

The study of data analytics and its applications in accounting contexts, with an emphasis on data preparation, modeling, analysis and interpretation, and visualization.

Prerequisites: (ACCT 2123 or ACCT 2302) and (MGMT 3013 or MGMT 3301).

ACCT 4334 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 3321 or ACCT 3213) and (FINA 3310 or FINA 3103).

ACCT 4399 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 5300 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 5310 Managerial Accounting & Control: 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.

Prerequisites: ACCT 5300 or ACCT 5003.

ACCT 5311 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 4322 or ACCT 4223.

ACCT 5312 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 5300 or ACCT 5003.

ACCT 5314 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 3321 or ACCT 3213.

ACCT 5315 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 5317 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 5300 or ACCT 5003.

ACCT 5332 Data Analytics in Accounting: 3 semester hours.

The study of data analytics and its applications in accounting contexts, with an emphasis on data preparation, modeling, analysis and interpretation, and visualization.

Prerequisites: ACCT 5300 or ACCT 5003.

ACCT 5399 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 5321 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.

African American Studies (AFAM)

Courses

AFAM 1301 Race Class and Gender in America: 3 semester hours.

This survey-based course examines the theoretical and historical impact of race, gender, and class in American society.

AFAM 2302 Introduction to Research Methods and Writing in African American Studies: 3 semester hours.

This course serves as an introduction to research methods and techniques of research writing. The course will focus on issues such as identifying research topics, evaluating academic sources and the documentation of sources.

AFAM 4301 Seminar in African American Studies: 3 semester hours.

The course allows students explore some of the themes and issues in previous coursework in greater depth. Students also rely on conceptual and operational methods to research and write about the experiences of African Americans.

Prerequisites: AFAM 2302 and HIST 3301.

AFAM 4302 Internship in Public History: 3 semester hours.

This course offers students an opportunity to undertake a supervised internship with an organization or institutions dedicated to public presentation of the past. Internships can take places at historic sites, government agencies, nonprofit organizations, advocacy groups, house museums, research libraries, and archives that engage in heritage interpretation, preservation and research.

Prerequisites: AFAM 2302 and HIST 3301.

AFAM 4331 Special Topics in African American Studies: 3 semester hours.

This course will focus on specific topics, trends, new directions, and issues in African American Studies that the professor deems appropriate and/or meets students' interests. Special topics courses will broadly engage major themes such as: race, class, gender, justice, art and cultural production, and power. This course may be repeated for credit when topics vary.

Ag and Human Resources (AGHR)

Courses

AGHR 3379 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 3699 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 4341 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 4399 Independent Study: 3 semester hours.

Readings, research and/or field work on selected topics. Prerequisite: Advisor consent.

Agricultural Economics (AGEC)

Courses

AGEC 3321 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: (AGRI 2321 or AGECE 2213) and (AGECE 3322 (may be taken concurrently) or AGECE 3223 (may be taken concurrently)).

AGEC 3322 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: (AGECE 3321 (may be taken concurrently) or AGECE 3213 (may be taken concurrently)) and (MATH 1113 or MATH 1314).

AGEC 3325 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: (AGRI 2317 or AGECE 1233 or ECON 2113 or ECON 2302) and (MATH 1113 or MATH 1314).

AGEC 3399 Independent Study: 1-3 semester hour.

Reading, research and/or field work on selected topics.

AGEC 4322 Agribusiness Management: 3 semester hours.

Economic and business principles applied to the organization and operation of farms and ranches, and other agri-business industries.

Prerequisites: (AGRI 2317 or AGECE 1233 or ECON 2113 or ECON 2302) and (MATH 1113 or MATH 1314).

AGEC 4323 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: ((AGECE 2317 or AGECE 1233) or (ECON 2113 or ECON 2302)) and (MATH 1113 or MATH 1314).

AGEC 4325 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: ((AGECE 1233 or AGRI 2317) or (ECON 2113 or ECON 2302)) and (MATH 1113 or MATH 1314).

AGEC 4399 Independent Study: 1-3 semester hour.

Readings, research and/or field work on selected topics.

AGEC 5321 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.

Agricultural Engineering (AGEG)

Courses

AGEG 4342 Farm Drainage: 3 semester hours.

Land drainage: terracing, gully control, irrigation, and land reclamation.

Agriculture (AGRI)

Courses

AGRI 1301 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: (AGRI 1370 or AGRO 1703) and (AGRO 2633 or AGRI 2363).

AGRI 1311 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: AGRI 1319 or ANSC 1513.

AGRI 1319 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.

AGRI 1327 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: (AGRI 1319 or ANSC 1513) and (AGRI 2351 (may be taken concurrently) or ANSC 2513) and (AGRI 1311 (may be taken concurrently) or ANSC 2533).

AGRI 1330 Land Grant System and Global Food Security: 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.

AGRI 1331 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.

AGRI 1341 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.

AGRI 1370 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.

AGRI 2317 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.

AGRI 2321 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: (AGRI 2317 or AGECE 1233) and (AGRI 2322 (may be taken concurrently) or AGECE 2223 (may be taken concurrently)).

AGRI 2322 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: (AGECE 1233 or AGRI 2317) and (AGECE 2213 or AGRI 2321).

AGRI 2342 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.

AGRI 2351 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: (AGRI 1319 or ANSC 1513) and (AGRI 1327 (may be taken concurrently) or ANSC 2523) and (AGRI 1311 (may be taken concurrently) or ANSC 2533).

AGRI 2354 Diseases and Sanitation: 3 semester hours.

Clinical studies of the most common livestock diseases embracing anamnesis, etiology, symptoms, diagnosis, therapeutics, and prophylaxis.

Prerequisites: (AGRI 1319 or ANSC 1513) and (AGRI 2351 (may be taken concurrently) or ANSC 2513) and (AGRI 1311 (may be taken concurrently) or ANSC 2533).

AGRI 2360 Environmental Soil Science: 3 semester hours.

An introduction to soils, its components and its relationship the environment. The importance of soils to man, animals and plants. Import 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.

AGRI 2363 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: AGRI 1370 or AGRO 1703.

AGRI 2373 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: AGRI 1370 or AGRO 1703.

Agronomy (AGRO)

Courses

AGRO 3362 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 or AGRO 2360 and (AGRO 3633 (may be taken concurrently) or AGRO 3363 (may be taken concurrently)) and (AGRO 3371 (may be taken concurrently) or AGRO 3713 (may be taken concurrently)).

AGRO 3363 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 or AGRO 2360 and (AGRO 3623 (may be taken concurrently) or AGRO 3362 (may be taken concurrently)) and (AGRO 3713 (may be taken concurrently) or AGRO 3371 (may be taken concurrently)).

AGRO 3364 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: (AGRI 2360 or AGRO 2603) and (AGRO 3373 (may be taken concurrently) or AGRO 3733).

AGRO 3371 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 or AGRI 1370.

AGRO 3373 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: AGRI 1370 or AGRO 1703.

AGRO 3399 Independent Study: 1-3 semester hour.

Readings, research and/or field work on selected topics.

AGRO 4361 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 3362 or AGRO 3623 and (AGRO 3363 or AGRO 3633) and (AGRO 3364 or AGRO 3643).

AGRO 4362 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 2360 or AGRO 2603 and (AGRI 1301 or AGRO 2613).

AGRO 4399 Independent Study: 1-3 semester hour.

Readings, research and/or field work on selected topics.

AGRO 5366 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 5375 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 5379 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 1210 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 1220 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 1210 or AFSC 1102.

AFSC 2210 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 1220 or AFSC 1202.

AFSC 4320 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 4310 or AFSC 4103.

Animal Science (ANSC)

Courses

ANSC 2255 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 3350 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 3351 Anatomy and Physiology: 3 semester hours.

Comparative approach, anatomically and physiologically of the basic systems of the domestic animals.

ANSC 3352 Meat Science: 3 semester hours.

Methods of slaughtering farm animals, processing, curing preservation and storage of meats and products.

Prerequisites: ANSC 1513 or AGRI 1319.

ANSC 3399 Independent Study: 3 semester hours.

Readings, research and/or field work on selected topics.

ANSC 3451 Anatomy and Physiology: 0-4 semester hour.

Comparative approach, anatomically and physiologically of the basic systems of domestic animals.

Prerequisites: AGRI 1319 or ANSC 1513.

ANSC 3699 Independent Study: 1-6 semester hour.

Readings, research and/or field work on selected topics.

ANSC 4353 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 4399 Independent Study: 3 semester hours.

Readings, research and/or field work on selected topics.

ANSC 4499 Independent Study: 1-4 semester hour.

Readings, Research and/or field work on selected topics.

Arabic (ARAB)

Courses

ARAB 1301 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 1302 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 1301 or ARAB 1013.

Architecture (ARCH)

Courses

ARCH 1301 Architectural History 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 1302 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 1303 Architectural Design I: 3 semester hours.

Introduction to basic design issues including form, 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 1307.

ARCH 1307 Visual Communications: 3 semester hours.

Multimedia techniques in graphics emphasizing orthographic projections, perspective, shade and shadow, color theory and freehand and digital drawing.

Co-requisite: ARCH 1303.

ARCH 1315 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, and Building Information Modeling (BIM) programs.

ARCH 1327 Multimedia Digital Application: 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 1626 Architectural 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 1303 or ARCH 1253.

ARCH 2312 Architectural Technology: 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 2603 Architecture Design III: 6 semester hours.

Problem solving and presentation of basic principles, concepts and ideas as applied to simple architectural problems

Prerequisites: ARCH 1626 or ARCH 1266.

ARCH 2604 Architecture Design IV: 6 semester hours.

Basic architectural design projects with an emphasis on site development, function, form and the design process.

Prerequisites: ARCH 2603 or ARCH 2256.

ARCH 3328 Materials and Methods: 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.

Prerequisites: ARCH 2312 or ARCH 2273.

ARCH 3329 Structural Systems I: 3 semester hours.

A study of the theory of various structural concepts. Emphasis is placed on statics and strength of materials.

Prerequisites: MATH 1316 or MATH 1123.

ARCH 3345 Environmental Systems: 3 semester hours.

Fundamentals of environmental systems for buildings with an emphasis on heating, cooling, and distribution systems.

ARCH 3346 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 3347 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 3625 Architecture Design V: 6 semester hours.

Building design as it relates to structure, circulation, context and support systems.

Prerequisites: (ARCH 2604 or ARCH 2266) and (ARCH 3329 (may be taken concurrently) or ARCH 3293 (may be taken concurrently)).

ARCH 3626 Architecture Design VI: 6 semester hours.

Analysis and design of structures of advanced complexity with emphasis on interrelationships of building systems.

Prerequisites: ARCH 3625 or ARCH 3256.

ARCH 4333 INTL EDUCATION AND TRAVEL INIT: 3 semester hours.

The study of architecture and building design focusing on historical and/or current projects in the country of _____. Included in the course will be a trip to _____ that will focus on exploring the methods and practice of architecture and construction in this country.

Prerequisites: (ARCH 2233 or ARCH 1301) and (ARCH 2243 or ARCH 1302).

ARCH 4343 Structural Systems II: 3 semester hours.

A study of theory, behavior and design of structural systems in steel and timber.

Prerequisites: ARCH 3329 or ARCH 3293 and (MATH 1123 or MATH 1316).

ARCH 4344 CAD Construction Documents and Codes: 3 semester hours.

The organization, development, and preparation of a representative set of working drawings using computer aided design.

Prerequisites: ARCH 1315 or ARCH 2223.

ARCH 4359 Professional Practice: 3 semester hours.

Overview of the ethical, legal and administrative responsibilities of the architect. The study of relationships between the architect, the client, and the contractor involved in comprehensive architectural services and emerging techniques of practice.

ARCH 4361 Landscape Architecture: 3 semester hours.

Principles of site development as related to climate, topography, and intended use.

ARCH 4363 Net Zero Energy Design I: 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 4364 Net Zero Energy Design II: 3 semester hours.

This course focuses on strategic decarbonization of new and existing buildings, reduction of dependence on fossil fuels and the positive impact on the environment as well as human health. This course will reinforce the adoption of heat pump technologies that can help reduce the carbon footprint of buildings.

ARCH 4366 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 4367 Introduction to Interior Design: 3 semester hours.

Introduction to the profession and practice of interior design.

ARCH 4368 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 4373 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 2322 or ARCH 2223.

ARCH 4374 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 1315 or ARCH 2223.

ARCH 4375 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 4376 Energy Modeling: 3 semester hours.

Utilize energy, solar, and daylighting modeling software to determine how to cost effectively achieve high performing buildings.

ARCH 4397 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 4399 Independent Study: 1-3 semester hour.

Readings, research, and/or field work on selected topics.

ARCH 4640 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 4645 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 3626 or ARCH 3266.

ARCH 4647 Architecture Design VIII: 6 semester hours.

Advanced problems in architecture and planning.

Prerequisites: ARCH 4645 or ARCH 4456.

ARCH 4698 Special Projects: 6 semester hours.

Unique design studio projects tailored to learning objectives. May be repeated for credit.

Prerequisites: ARCH 2266 or ARCH 2626 or ARCH 2604.

ARCH 4699 Independent Study: 1-6 semester hour.

Readings, research, and/or field work on selected topics.

ARCH 5159 Prof Employmnt Dev-Soft Skills: 1 semester hour.

Graduating senior seminar for Architecture majors to provide an introduction to industry options with an emphasis preparing for success in their career by improving their "soft skills."

ARCH 5348 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 4343 or ARCH 4433.

ARCH 5351 Research Seminar: 3 semester hours.

Research and programming for the integrated Project Studio.

ARCH 5374 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 5397 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 5650 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 5656 Architecture Design IX: 6 semester hours.

Advanced design studio with emphasis on integrated architectural design projects.

ARCH 5698 Special Projects: 6 semester hours.

Design projects of differing lengths and content with group or individual involvement. May be repeated for credit.

ARCH 5699 Independent Study: 1-6 semester hour.

Readings, research, and/or field work on selected topics. Prerequisite: Consent of advisor.

ARCH 5957 Comprehensive Project Studio: 9 semester hours.

An integrated design project based on research and programming accomplished in ARCH 5351.

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 1112 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 1117 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 1118 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 2127 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 2128 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 2221 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 1112 or 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 or ARMY 2221.

ARMY 2320 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 3137 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 3138 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 3331 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 2221 or ARMY 2212) and ARMY 2222.

ARMY 3332 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 3331 or ARMY 3313.

ARMY 3399 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 2221 or ARMY 2212 and ARMY 2222.

ARMY 4141 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 4341 or ARMY 4413) and (ARMY 4342 or ARMY 4423).

ARMY 4142 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 4341 or ARMY 4413 and (ARMY 4342 or ARMY 4423).

ARMY 4147 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.

ARMY 4148 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.

ARMY 4341 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 4342 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.

ARMY 4399 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 3331 or ARMY 3313 and (ARMY 3332 or ARMY 3323).

Art (ARTS)

Courses

ARTS 1301 Art Appreciation: 3 semester hours.

An introductory course that emphasizes an understanding and appreciation for the visual arts (painting, drawing, sculpture, architecture, crafts etc.).

ARTS 1303 Art History I (Prehistoric to the 14th Century): 3 semester hours.

A survey of painting, sculpture, architecture and the minor arts from prehistoric times to the 13th century.

ARTS 1304 Art History II (14th century to the present): 3 semester hours.

Art from the 13th Century to contemporary times including Europe, Asia, the Far East and the Americas.

ARTS 1311 Design I (2-Dimensional): 3 semester hours.

Study of the elements and concepts of two-dimensional design.

ARTS 1312 Design II: 3 semester hours.

A continuation of Design I with emphasis on Research and concept development, Form and composition relationships, and Hand-crafted 3-dimensional media experimentation.

Prerequisites: ARTS 1311 or ARTS 1113.

ARTS 1315 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 1311 or ARTS 1113.

ARTS 1316 Drawing I: 3 semester hours.

An introductory course investigating a variety of media and techniques.

ARTS 2311 Design III: 3 semester hours.

Exploration of the language of color focusing on color properties and relationships, expressive qualities and symbolic meanings.

Prerequisites: ARTS 1311 or ARTS 1113.

ARTS 2316 Painting: 3 semester hours.

Basic principles and elements of painting.

ARTS 2328 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 2331 Graphic Design History: 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 2336 Sign + Symbol: 3 semester hours.

Investigation of images and symbols and their meanings within different contexts and employing various image-making techniques.

Prerequisites: ARTS 1316 or ARTS 1153 and (DGMA 2317 or DGMA 2173).

ARTS 2399 Independent Study: 1-3 semester hour.

Individual studies in studio art.

ARTS 3314 Sculpture I: 3 semester hours.

An exploration of various sculptural approaches in a variety of media, including additive and subtractive techniques.

ARTS 3317 Watercolor: 3 semester hours.

Study and practice in planning and execution of painting in transparent and opaque watercolor.

ARTS 3319 Printmaking: 3 semester hours.

Introduction to basic printmaking techniques, with emphasis on the proper use of tools and equipment.

ARTS 3351 Crafts Design: 3 semester hours.

The study of several crafts including clay, fibers, paper, textiles and plaster.

ARTS 3399 Independent Study: 1-3 semester hour.

Individual studies in studio art.

ARTS 4310 Creative Photography I: 3 semester hours.

An introduction to basic photographic processes and techniques used as an art medium.

ARTS 4313 Printmaking II: 3 semester hours.

Exploration of ideas using various printmaking media and techniques. This course builds upon Printmaking I (ARTS 3319) 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.

ARTS 4321 Book Arts: 3 semester hours.

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' books that incorporate sculpture, painting, printmaking, photography, encaustic, and graphic design.

ARTS 4399 Independent Study in Studio Art: 3 semester hours.

Individual studies in studio art.

Biology (BIOL)

Courses

BIOL 1102 Biology Seminar: 1 semester hour.

Discussion and presentations of current biological topics by students, faculty, and guest lecturers.

BIOL 1103 Biology Seminar: 1 semester hour.

Discussion and presentations of current biological topics by students, faculty, and guest lecturers.

BIOL 1108 Biology for Non-Science Major I Lab: 1 semester hour.

Introductory laboratory course for non-biology majors. Emphasis on basic biological principles and their application to human life.

BIOL 1307 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 1308 Biology for Non-Science Major 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 1309 Biology for Non-Science Majors 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 1411 Botany: 4 semester hours.

Morphology and physiology of flowering plants. Structure, method of reproduction, and biotic relationships of type representatives of lower plants.

BIOL 1501 General Biology: 5 semester hours.

Basis of life, cell theory, structure and energy transformation, reproduction, and genetic variability. Origins of diversity of organisms.

BIOL 1502 General Biology: 5 semester hours.

Structure and function of living organism systems. Ecological relationships, natural selection, evolution, and human ecology.

BIOL 2306 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 2401 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 2402 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 2416 Genetics: 4 semester hours.

Analysis of the structure, function, and transmission of genetic materials.

Prerequisites: (BIOL 1501 or BIOL 1015) and (BIOL 1502 or BIOL 1025) and (BIOL 1411 or BIOL 1034).

BIOL 3307 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 1502 or BIOL 1025) and (CHEM 2304 or CHEM 2043).

BIOL 3308 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 1502 or BIOL 1025 and (CHEM 2304 or CHEM 2043).

BIOL 3401 Human Physiology and Anatomy: 4 semester hours.

For biology and physical education majors. Human structure, physiology, organ systems, and related principles.

Prerequisites: (BIOL 1501 or BIOL 1015) and (BIOL 1502 or BIOL 1025).

BIOL 3402 Human Physiology and Anatomy: 4 semester hours.

For biology and physical education majors. Human structure, physiology, organ systems, and related principles.

Prerequisites: BIOL 1501 or BIOL 1015 and (BIOL 1502 or BIOL 1025).

BIOL 3403 General Microbiology: 4 semester hours.

Morphology, physiology, classification, and cultivation of the microorganism relevant to agriculture, pre-medicine, and industry.

Prerequisites: (BIOL 1501 or BIOL 1015) and (CHEM 1303 or CHEM 1033).

BIOL 3404 Immunology: 4 semester hours.

Fundamental aspects of immunology, antigenic systems, hypersensitivity, and serology.

Prerequisites: BIOL 1501 or BIOL 1015 and (BIOL 1502 or BIOL 1025).

BIOL 3405 Gross Anatomy: 4 semester hours.

Introduce the basic principles and facts relating to the gross anatomy of the human body.

Prerequisites: (BIOL 1501 or BIOL 1015) and (BIOL 1502 or BIOL 1025).

BIOL 3406 Animal Histology: 4 semester hours.

Microscopic study of tissues and organs of vertebrates. Relation of structure to function.

Prerequisites: BIOL 1501 or BIOL 1015 and (BIOL 1502 or BIOL 1025).

BIOL 3412 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 1502 or BIOL 1025 and (CHEM 2304 or CHEM 2043).

BIOL 3413 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 1501 or BIOL 1015) and (BIOL 1502 or BIOL 1025) and (BIOL 2416 or BIOL 2054) and (BIOL 3307 or BIOL 3073).

BIOL 4105 Research: 1 semester hour.

Library and laboratory work in specific biological problems.

BIOL 4106 Research: 1 semester hour.

Library and laboratory work in specific biological problems.

BIOL 4201 Medical 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 4301 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 1501 or BIOL 1015) and (BIOL 1502 or BIOL 1025) and (BIOL 2416 or BIOL 2054) and (CHEM 2303 or CHEM 2033) and (CHEM 2304 or CHEM 2043).

BIOL 4401 Vertebrate Embryology: 4 semester hours.

Structure, principles, and progress in vertebrate development. Chickens and pigs as principle laboratory materials.

Prerequisites: BIOL 1501 or BIOL 1015 and (BIOL 1502 or BIOL 1025).

BIOL 4402 Comparative Anatomy: 4 semester hours.

Anatomy of organs and organ systems, their function and evolution in major vertebrate types.

Prerequisites: BIOL 1501 or BIOL 1015 and (BIOL 1502 or BIOL 1025).

BIOL 4403 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 5301 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 5306 Micro Activ Toxic: 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 5312 Cell 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 2303 or CHEM 2033 and (CHEM 2304 or CHEM 2043).

BIOL 5399 Independent Study: 1-3 semester hour.

Reading, research and/or field work on selected topics in Biology. Prerequisite: Consent of advisor. Students may register for this course each semester. Only six credit hours may be earned.

BIOL 5402 Microscopic Anatomy: 4 semester hours.

Microscopic study of tissues and organ of vertebrates; relation of structure to function.

Business Communication (BCOM)

Courses

BCOM 3330 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 1302 or ENGL 1133) and (MISY 1305 or MISY 1013).

BCOM 5320 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 2301 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 2321 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 2301 or BLAW 2203.

BLAW 2324 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 2302 or BLAW 2203.

BLAW 2334 Law of Contracts: 3 semester hours.

The course covers the basics of both real estate law and contract law with practical instructions on Texas real estate employment, sales, and lease contracts as well as laws and processes involved in financing, property ownership and conveyance. It is combined with promulgated contract forms to enable students opportunity to learn and understand the forms and addenda put forth by the Texas Real Estate Commission (TREC).

Prerequisites: BLAW 2324.

BLAW 2399 Independent Study in Business Law: 3 semester hours.

Supervised reading, research, and/or field work on selected topics in business law.

Prerequisites: BLAW 2301 or BLAW 2203.

Chemical Engineering (CHEG)

Courses

CHEG 1101 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 1102.

CHEG 1102 Intro CHEG Lab: 1 semester hour.

Introduction to the chemical engineering profession, chemical engineering processes, common chemical engineering measurements with lab experiments, engineering disasters, risk and responsibility for safety.

Co-requisite: CHEG 1101.

CHEG 1202 Introduction to Computations in CHEG: 2 semester hours.

An introductory course of important chemical engineering concepts and computations. Students will learn how to classify problems based on their mathematical nature. Topics include basic introductory calculations involving material and energy balances, fluid flow phenomena, fundamental thermodynamics and kinetics, and introductory software and simulation tools such as Visual Basic and CHEMCAD.

Prerequisites: CHEG 1102 or CHEG 1021 and (MATH 2413 (may be taken concurrently) or MATH 1124).

CHEG 2215 Biochemical Engineering Fundamentals Lab: 2 semester hours.

This course consists of biochemical engineering laboratory experiments, with emphasis on biochemical reactors, mass transfer in bioreactors, microbial transformations and enzyme catalyzed reactions and their control. Measurement of maximum specific growth rate, saturation constants of substrates, kinetic constants of enzymes and characterization of immobilized enzymes will be carried out. Analysis oxygen absorption rates in shake-flasks in the study of control of respiration and fermentation in baker's yeast, kinetics of yeast growth, kinetics of free and immobilized enzyme reactions and operational decay constant and half-life of immobilized enzymes.

CHEG 2301 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 1304 or CHEM 1043) or (CHEM 1403 or CHEM 1034).

CHEG 2308 Engineering Economics: 3 semester hours.

Fundamental concepts of economic principles. Evaluation of technical alternatives, economic significance of technical proposals; interest, description, analysis, and forecasting.

Prerequisites: MATH 2413 or MATH 1124.

CHEG 2315 Introduction to Biochemical Engineering Fundamentals: 3 semester hours.

This course introduce 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 physiology. Subsequently, special emphasis is placed on applying engineering concepts to biological problems.

Prerequisites: CHEM 1304 or CHEM 1403.

CHEG 2316 Ethical Engineering in a Global Society: 3 semester hours.

An introductory view into how moral principles and standards are applied to the field of engineering. Students will learn how to navigate ethical problems. Topics include the responsibilities of an engineer, the code of conduct, ethical theories, ethics in the law, and case studies of engineering successes and failures.

Prerequisites: (CHEG 1101 or CHEG 1011) or (CVEG 1101 or CVEG 1011) or (ELEG 1101 or ELEG 1011) or (MCEG 1101 or MCEG 1011).

CHEG 2333 Material and Energy Balances: 3 semester hours.

Application of the laws of conservation of mass and energy to reacting and nonreaction simple and complex chemical systems. Application of both element and species balance to multiple reaction systems. Application of static fluid pressure measurements to safety hazards in vessels, process calculations involving safe handling of fuel-air mixtures between lower and upper flammability limits and purging of gases through relief valves. Application of the degree-of-freedom analysis to single process units and multi-unit process flow-sheets. Numerical solution techniques for the solution of balance equations.

Prerequisites: CHEM 1304 or CHEM 1043 or CHEM 1403 or CHEM 1034 and (PHYS 2325 or PHYS 2513) and (CHEM 1202 or CHEM 1022).

CHEG 2334 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: CHEG 2333 or CHEG 2053.

CHEG 2615 Chemical Engineering Internship I: 6 semester hours.

This course is an internship program of work experience with an approved engineering firm.

CHEG 3101 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. Study of elements and methods of scientific inquiry and investigation, experimental data analysis, modeling and simulation, and dissemination of scientific results, including: design of experiments, product and process design, model validation and verification, literature survey and review techniques, and effective technical reporting modes. Strong emphasis is placed on safety.

Prerequisites: PHYS 2125 or PHYS 2511 and (PHYS 2126 or PHYS 2521) and (CHEM 1112 or CHEM 1021) and (COMM 1311 or COMM 1003) and (ENGL 1302 or ENGL 1133 or ENGL 1143 or ENGL 2311) and (CHEG 3301 (may be taken concurrently) or CHEG 3013) and (CHEG 3304 (may be taken concurrently) or CHEG 3053) and (MATH 3302 (may be taken concurrently) or MATH 3023).

CHEG 3301 Heat, Mass, and Momentum Transport: 3 semester hours.

Macroscopic and differential balances for heat, mass, and momentum. Energy balances and mechanical energy balances. Ideal Newtonian and non-Newtonian fluid behavior. Comparison of the transport processes in laminar and turbulent flow. Dimensional analysis.

Prerequisites: (CHEG 2334 or CHEG 2043) and (MATH 2320 or MATH 2043).

CHEG 3302 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 2333 or (CHEG 2053 or CHEG 2305).

CHEG 3304 Chemical Engineering Thermodynamics II: 3 semester hours.

Properties of ideal and non-ideal binary and multi-component mixtures. Study of phase equilibria for single- and multi-component systems based on methods of corresponding states, equation of states and activity coefficient. Chemical equilibria applied to both homogeneous and heterogeneous systems.

Prerequisites: (CHEG 2043 or CHEG 2334).

CHEG 3305 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 2333 or CHEG 2053 and (CHEG 3304 or CHEG 3053).

CHEG 3306 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. Design of batch, semi-batch, CSTR, and tubular reactors, heat effects and runaway reaction prevention and introduction to heterogeneous catalysis.

Prerequisites: MATH 2320 or MATH 2043 and (CHEG 3304 or CHEG 3053) and (CHEG 2301 or CHEG 2013).

CHEG 3311 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-fueled energy will be investigated along with others such as hydropower, biofuels, and the developing renewable energy systems.

Prerequisites: (MATH 2414 or MATH 2024) and (PHYS 2326 or PHYS 2523) and ((CHEM 1403 or CHEM 1034) or (CHEM 1304 or CHEM 1043)).

CHEG 3312 Petroleum Engineering Fundamentals: 3 semester hours.

This course consists of an overview of petroleum industry and petroleum engineering including nature of oil and gas reservoirs, petroleum exploration and drilling, formation evaluation, well completions and production, surface facilities, reservoir mechanics, and improved oil recovery.

CHEG 3315 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: CHEM 1304 or CHEM 1043 or CHEM 1403 or CHEM 1034 and (CHEM 2303 or CHEM 2033).

CHEG 3615 Chemical Engineering Internship II: 6 semester hours.

This course is an internship program of work experience with an approved engineering firm.

CHEG 4101 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 3302 or CHEG 3023) and (CHEG 3304 or CHEG 3053) and (COMM 1311 or COMM 1003 and (ENGL 1302 or ENGL 1133) or ENGL 2311 or ENGL 1143) and (PHYS 2125 or PHYS 2511) and (PHYS 2126 or PHYS 2521) and (CHEM 1112 or CHEM 1021).

CHEG 4104 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 4303 or CHEG 4033 and (COMM 1311 or COMM 1003 or SPCH 1003) and (ENGL 1302 or ENGL 1133 or ENGL 1143 or ENGL 2311) and (PHYS 2125 or PHYS 2511) and (PHYS 2126 or PHYS 2521) and (CHEM 1112 or CHEM 1021).

CHEG 4247 Senior Design and Professionalism -I: 2 semester hours.

This is the first course of a two-semester capstone experience (CHEG 4248 must immediately follow 4247 or sequence must restart with 4247) 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 3301 or CHEG 3013) and (CHEG 3023 or CHEG 3302) and (CHEG 3043 or CHEG 3305) and (CHEG 3063 or CHEG 3306).

CHEG 4248 Senior Design and Professionalism - II: 2 semester hours.

A continuation of the CHEG 4247 course emphasizing the analysis and design of a complete chemical processes and prepares students for engineering practice. The team projects use chemical engineering and economic principles to solve design and optimization problems of chemical processing systems. Projects include extensive use of simulation packages such as ASPEN PLUS and use of hazard analysis techniques such as Hazard and Operability (HAZOP) studies determining an optimum selection of process variables .

Prerequisites: CHEG 4247 or CHEG 4472.

CHEG 4303 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 3306 or CHEG 3063) and (MATH 4317 or MATH 4173).

CHEG 4304 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 3301 or CHEG 3013) and (CHEG 3302 or CHEG 3023) and (CHEG 3305 or CHEG 3043) and (CHEG 3306 or CHEG 3063).

CHEG 4310 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 4312 Process Safety Engineering Fundamentals: 3 semester hours.

This course addresses aspects of chemical process safety and loss prevention, such as identification of potential hazards and hazardous conditions associated with processes and equipment involved in the chemical process industries. It includes methods of predicting the severity of the associated hazards and preventing, controlling or mitigating them. It emphasizes quantitative engineering analysis; techniques for performing process hazard analysis, risk assessment, and accident investigation are introduced.

CHEG 4313 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 4315 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 4318 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 3301 or CHEG 3013 and (CHEG 3302 or CHEG 3023) and (CHEG 3304 or CHEG 3053) and (CHEG 3306 or CHEG 3063).

CHEG 4321 Nuclear Science Fundamentals: 3 semester hours.

An interdisciplinary survey course introducing the basics of atomic and nuclear science, radiation physics and their relation to engineering problems and applications. Specific applications to nuclear materials, nuclear safety, nuclear forensics, radiation detection, radiation safety, and radiation effects on humans and technology. Technical background assumed is the standard physics, mathematics and chemistry required for an undergraduate engineering degree.

CHEG 4322 Nuclear Forensic Analysis: 3 semester hours.

The course introduces methods important to the investigation of nuclear materials to identify the source, trafficking mode, and level of enrichment of particular nuclear materials recovered from various sources such as dust at a nuclear facility locale, or post-nuclear explosion debris. Topics include radiochemistry review, nuclear applications for power and defense, contemporary issues in forensics and proliferation, methods for forensics analysis, and case studies.

CHEG 4399 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 5301 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 5302 Microelectronics Materials: 3 semester hours.

Heterogeneous chemical reactions. Chemical engineering aspects of materials fabrication and processing. CVD thin film deposition techniques. Preparation of superconducting powders. Composites. Modeling and practical applications.

CHEG 5303 Environmental Processes: 3 semester hours.

Fundamentals of environmental engineering, chemistry, physical-chemistry and transport properties. Energy and mass balances. Reactions and reactors. Biological processes. Bioremediation.

CHEG 5304 Remediation Technologies: 3 semester hours.

Fundamentals of environmental remediation. Physical-chemical processes. Bioremediation. Stabilization and solidification. Thermal methods. Site characterization. Risk assessment. Containment. Remedial Alternatives Applications to real contaminated sites.

CHEG 5305 Chemical Engineering Thermodynamics: 3 semester hours.

This is a survey course starting with a review of thermodynamic laws then proceeding to examine ways that thermodynamics apply to various systems from static to dynamic, inert to reactive, and ultimately from abiotic to living systems. The approach will be to engage in readings (articles, book chapters, media releases), viewings (lectures, photos, videos), discussion (face to face and web assisted), and project based design and evaluation activities.

CHEG 5306 Transport Phenomena: 3 semester hours.

Transport Phenomena provides a unified treatment of momentum, mass, and energy transport in chemical engineering problems. Vector and tensor notations and mathematics will be used in expressing equations of continuity, motion, energy. Further develops the foundations of transport phenomena to apply this knowledge to the solution of problems of interest to the engineer.

CHEG 5311 Petroleum Engineering: 3 semester hours.

This course examines the petroleum industry and petroleum engineering including nature of oil and gas reservoirs, petroleum exploration and drilling, formation evaluation, well completions and production, surface facilities, reservoir mechanics, and improved oil recovery.

CHEG 5312 Process Safety Engineering: 3 semester hours.

This course addresses multiple aspects of chemical process safety and loss prevention in chemical manufacturing. Includes methods of predicting severity of hazards and preventing/controlling/mitigating them. Emphasizes quantitative engineering analysis based on applications of engineering principles.

CHEG 5321 Nuclear Science: 3 semester hours.

The objective of this course is to explore the fundamental aspects of nuclear and radiochemistry, with emphasis on the determination of radioactive species and the application of nuclear processes, radioactive materials, and radiochemical techniques in major applications such as medicine, nuclear power, national defense, and threat reduction.

CHEG 5322 Nuclear Forensics: 3 semester hours.

This course develops nuclear forensic skills needed for potential future terrorist attempted or actual events. Students learn to answer the questions where did the nuclear material come from (attribution), what route did it follow to the interdiction site (route attribution), what route did it follow to the interdiction site (route attribution), how to safely collect nuclear materials for an interdiction site, how nuclear materials (pre-detonation and post-detonation) are analyzed, how to evaluate of pre-detonation nuclear materials' capabilities and how to interface with emergency response, law enforcement (FBI, UHP), Intelligence community, State Department and International Treaties.

Chemistry (CHEM)

Courses

CHEM 1106 General Chemistry Lab: 1 semester hour.

A laboratory course in general chemistry for students in the health sciences.

Prerequisites: CHEM 1306 (may be taken concurrently) or CHEM 1053 (may be taken concurrently).

CHEM 1111 General Chemistry Lab I: 1 semester hour.

A general laboratory course covering aspects of qualitative and quantitative analysis and determination of chemical and physical properties.

Prerequisites: (CHEM 1311 or CHEM 1013) or (CHEM 1303 or CHEM 1033) or (MATH 1314 or MATH 1113).

CHEM 1112 General Chemistry Lab II: 1 semester hour.

The second semester continuation of CHEM 1111. A general laboratory course covering aspects of qualitative and quantitative analysis and determination of chemical and physical properties.

Prerequisites: ((MATH 1314 or MATH 1113) or (MATH 1511 or MATH 1115)) and ((CHEM 1403 (may be taken concurrently) or CHEM 1034 (may be taken concurrently)) or (CHEM 1304 (may be taken concurrently) or CHEM 1043 (may be taken concurrently))).

CHEM 1203 General Chemistry Lab: 2 semester hours.

For students majoring or minoring 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 1314 (may be taken concurrently) or MATH 1113 (may be taken concurrently)) or (MATH 1511 (may be taken concurrently) or MATH 1115 (may be taken concurrently))) and (CHEM 1303 or CHEM 1033).

CHEM 1204 General Inorganic Chemistry Laboratory II: 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 1314) or (MATH 1511 or MATH 1115)) and (CHEM 1043 or CHEM 1304).

CHEM 1303 General Inorganic Chemistry I: 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 1314 or MATH 1113) or (MATH 1511 or MATH 1115).

CHEM 1304 General Inorganic Chemistry II: 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 1314 or MATH 1113) or (CHEM 1303 or CHEM 1033).

CHEM 1306 Introductory Chemistry I: 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 1311 General 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 1314 or MATH 1113.

Co-requisite: MATH 1314.

CHEM 1403 Chemistry for Engineers: 4 semester hours.

Fundamental and Physical principles in chemistry, bonding, thermodynamics and kinetics with emphasis to engineering applications.

Prerequisites: (CHEM 1303 or CHEM 1033) or (CHEM 1311 or CHEM 1013).

CHEM 2201 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 1303 or CHEM 1033) and (CHEM 1204 or CHEM 1042) and (CHEM 1304 or CHEM 1043).

CHEM 2203 Organic Chemistry Lab I: 2 semester hours.

A laboratory course including qualitative and quantitative investigations focusing on preparation and characterization of organic compounds.

Prerequisites: CHEM 2303 (may be taken concurrently) or CHEM 2033 (may be taken concurrently).

CHEM 2204 Organic Chemistry Lab II: 2 semester hours.

This is a continuation of CHEM 2203.

Prerequisites: CHEM 2304 (may be taken concurrently) or CHEM 2043 (may be taken concurrently).

CHEM 2211 Quantitative Analysis Lab: 2 semester hours.

This course is a continuation of the CHEM 2201.

Prerequisites: (CHEM 1204 or CHEM 1042) and (CHEM 2201 (may be taken concurrently) or CHEM 2012 (may be taken concurrently)).

CHEM 2303 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 1304 or CHEM 1043.

CHEM 2304 General Organic Chemistry II: 3 semester hours.

For chemistry majors and minors, chemical engineering, and science majors. A continuation of CHEM 2303. 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 2303 or CHEM 2033.

CHEM 3242 Physical Chemistry Lab: 2 semester hours.

A laboratory course including experimental studies in chemical thermodynamics, equilibria, chemical kinetics, transport properties, spectroscopy, and molecular structure.

Prerequisites: CHEM 3341 (may be taken concurrently) or CHEM 3413.

Co-requisite: CHEM 3341.

CHEM 3243 Physical Chemistry Lab: 2 semester hours.

This course is a continuation of CHEM 3242.

Co-requisite: CHEM 3342.

CHEM 3341 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 1304 or CHEM 1403) and (MATH 2413 or MATH 1124).

CHEM 3342 Physical Chemistry: 3 semester hours.

A continuation of CHEM 3413. Rate processes, kinetic theory and transport properties of gasses and liquids. An introduction to the Fundamentals of Quantum mechanics and spectroscopy. Atomic and molecular structure. Electric and magnetic properties of molecules.

Prerequisites: MATH 2320 or MATH 2043 and (CHEM 3341 or CHEM 3413).

CHEM 3350 Introduction to Cosmetic Chemistry: 3 semester hours.

This class is for students majoring in a science or health field. A lecture course covering introductory aspects of Cosmetic Chemistry, including Classification of Cosmetics, Dosage Forms of Cosmetics, Manufacturing Practices, Labeling Cosmetics, Current Rules and Regulations for Cosmetics.

Prerequisites: BIOL 1501 or BIOL 1015 or BIOL 1308 or BIOL 1113 and (CHEM 1303 or CHEM 1033 or CHEM 1306 or CHEM 1053 or CHEM 1311 or CHEM 1013).

CHEM 3351 Introduction to Green and Sustainable Chemistry Principles: 3 semester hours.

Introduction to Green and Sustainable Chemistry Principles. This course will explore the fundamentals of chemistry, how chemistry can help address global human health and environmental issues. It introduces the foundational principles of chemistry, including atoms, molecules, chemical reactions, stoichiometry, chemical/physical properties, and periodic table trends. This knowledge is then related to various environmental and human health issues. It develops the appropriate solutions using green chemistry approaches covered in the course.

Prerequisites: CHEM 1033 or CHEM 1303 and (CHEM 2303 or CHEM 2033).

CHEM 4100 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 4105 Research: 1 semester hour.

Library and laboratory work on selected problems.

CHEM 4106 Research: 1 semester hour.

Library and laboratory work on selected problems.

CHEM 4203 Forensic Chemistry Lab: 2 semester hours.

Drug identification and confirmatory tests using spectroscopic techniques that include HPLC, GC, ICP/ AES, FTIR. Sample handling and storage.

Prerequisites: CHEM 4305 or CHEM 4053.

CHEM 4204 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 4303 (may be taken concurrently) or CHEM 4033 (may be taken concurrently).

Co-requisite: CHEM 4303.

CHEM 4205 Instrumental Analysis Lab: 2 semester hours.

Laboratory course that includes experimental applications of spectroscopy, electro-analytical methods, and chromatography.

Co-requisite: CHEM 4305.

CHEM 4302 Forensic Chemistry: 3 semester hours.

Introduction to forensic science, chemical evidence handling, analysis and drug classification. Sampling techniques in forensic chemistry.

Prerequisites: CHEM 2304 or CHEM 2043.

Co-requisite: CHEM 4303.

CHEM 4303 Biochemistry: 3 semester hours.

A study of the chemistry of biological molecules: proteins, lipids, carbohydrates and nucleic acids. Enzyme catalysis, Bioenergetics, Metabolism of carbohydrates, fats and proteins. Interrelationship of the metabolic pathways.

Prerequisites: CHEM 2303 or CHEM 2033 and CHEM 2304 or CHEM 2043.

CHEM 4305 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 3341 or CHEM 3413.

CHEM 4306 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 3341 or CHEM 3413.

CHEM 4399 Independent Study: 1-3 semester hour.

Readings, research, and/or field work on selected topics.

CHEM 5232 Instrumental Lab: 2 semester hours.

An integrated laboratory that uses modern instrumentation to analyze complex chemical systems. Theories and principles encountered in CHEM 5313 (5331) and CHEM 5323(5332) will provide the basis for bulk, surface, and interfacial analysis at the atomic and molecular levels.

Prerequisites: CHEM 5331 or CHEM 5313 and (CHEM 5332 or CHEM 5323).

CHEM 5240 Advanced Organic Chemistry: 2 semester hours.

A review of elementary Organic Chemistry with an extension of more advanced topics. Includes assigned subject materials.

CHEM 5301 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 5302 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 5321 Polymer Chemistry: 3 semester hours.

Mechanisms of polymerization reactions of monomers and molecular weight distributions of products; principles, limitations and advantages of most important methods of molecular weight determination; relationship of physical properties to structure and composition; correlations of applications with chemical constitution.

Prerequisites: CHEM 2303 or CHEM 2033.

CHEM 5331 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 5378 or CHEM 5738.

CHEM 5332 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 5378 or CHEM 5783.

CHEM 5361 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 5378 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 5399 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.

CHEM 5441 Identification of Organic Compounds: 4 semester hours.

The separation and identification of pure organic compounds and mixtures.

CHEM 5453 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 5499 Independent Study: 1-4 semester hour.

Individual studies in advanced chemistry, reading, literature research/analysis/problem solving/writing research reports on selected topics in advanced chemistry.

CHEM 5602 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.

Chinese (CHIN)

Courses

CHIN 1301 Beginning 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 1302 Beginning Chinese II: 3 semester hours.

Continuation of acquisition of language skills and culture introduced in Beginning Chinese I.
Prerequisites: CHIN 1301 or CHIN 1013.

CHIN 2311 Intermediate Chinese I: 3 semester hours.

Continuation of acquisition of language skills and culture presented in Beginning Chinese I and II.
Prerequisites: CHIN 1302 or CHIN 1023.

CHIN 2312 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 2311 or CHIN 2013.

Civil Engineering (CVEG)

Courses

CVEG 1101 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 1102.

CVEG 1102 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 1101.

CVEG 2100 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 1101 or CVEG 1011 and (CVEG 1102 or CVEG 1021).

CVEG 2101 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 1302 or ENGL 1133) or (ENGL 2311 or ENGL 1143) and (CVEG 2301 or CVEG 2043).

CVEG 2102 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 2413 or MATH 1124) and (CVEG 2304 or CVEG 2073).

CVEG 2301 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 2325 or PHYS 2513.

CVEG 2302 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 2301 or CVEG 2043.

CVEG 2304 Global Development Issues: 3 semester hours.

An overview of global development issues and their importance. Global and regional developing goals, history, implementation and impact. Global and local dimensions of development, and the concept of sustainability. Ethical dimensions of development, management concepts for projects and related issues. Global issues related to energy, the environment, and the food-energy-water (FEW) nexus. Audience-appropriate visualization and documentation.

CVEG 2332 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 2301 or CVEG 2043) or (CVEG 2454 or CVEG 2400)) and (MATH 2414 or MATH 2024).

CVEG 2400 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 2325 or PHYS 2513.

CVEG 3100 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 2332 or CVEG 2063) and (CVEG 2101 or CVEG 2061).

CVEG 3102 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 3302 or MATH 3023 and (MATH 4317 or MATH 4173) and (CVEG 3300 or CVEG 3023) and (CVEG 3100 or CVEG 3031) and (CVEG 3301 or CVEG 3043) and (CVEG 3302 or CVEG 3053) and (CVEG 3303 or CVEG 3063) and (CHEG 2308 or CHEG 2003).

CVEG 3300 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 2101 or CVEG 2061 and (CVEG 2332 or CVEG 2063).

CVEG 3301 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 1403 or CHEM 1034) or (CHEM 1303 or CHEM 1033) and (CHEM 1304 or CHEM 1043) and (CHEM 1112 or CHEM 1021) and (BIOL 1307 or BIOL 1073) or (BIOL 1308 or BIOL 1113) or (BIOL 1309 or BIOL 1123).

CVEG 3302 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 2320 (may be taken concurrently) and (CHEG 2308 or CHEG 2003) and (CVEG 2102 or CVEG 2081) and (COMM 1311 or COMM 1003).

CVEG 3303 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 2301 or CVEG 2043.

CVEG 3304 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 2332 or CVEG 2063.

CVEG 3305 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 3304 or CVEG 3073.

CVEG 3600 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 4100 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 3300 or CVEG 3023.

CVEG 4200 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 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: (CVEG 3300 or CVEG 3023) and (CVEG 3301 or CVEG 3043) and (CVEG 3302 or CVEG 3053) and (CVEG 3303 or CVEG 3063) and (CVEG 3304 or CVEG 3073).

CVEG 4201 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 4200 or CVEG 4472.

CVEG 4300 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 3100 or CVEG 3031) and (CVEG 3073 or CVEG 3304).

CVEG 4301 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 3301 or CVEG 3043.

CVEG 4302 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 3302 or CVEG 3053.

CVEG 4303 Water Resources Engineering: 3 semester hours.

Control and utilization of water; flood control; water distribution systems; open channel flows; and hydraulic structures.

Prerequisites: CVEG 3303 or CVEG 3063.

CVEG 4304 Systems Engineering: 3 semester hours.

Formulation and solution of engineering optimization problems with uncertainty factors; inclusion of sensitivity and risk analyses in optimization problems; topics in engineering management.

Prerequisites: MATH 3302 or MATH 3023 and (CVEG 3302 or CVEG 3053).

CVEG 4305 Special Topics: 3 semester hours.

Selected current and emerging topics in Civil Engineering depending on need determined by the department.

CVEG 4399 Independent Study: 1-3 semester hour.

Readings, research, and/or field work in selected topics.

CVEG 4600 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 5300 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 5301 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 5302 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 5303 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 5304 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 5305 Prestressed Concrete Design: 3 semester hours.

Principles and concepts of design in prestressed concrete including materials behavior, prestress loss, elastic and ultimate strength analyses for flexure, shear, torsion, bond and deflection.

CVEG 5306 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 5307 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 5320 or GNEG 5302.

CVEG 5309 GEOSCIENCES and GEOSPATIAL INFORMATION: 3 semester hours.

Introduction of geosciences concepts for information management. Basic concepts in geosciences including Geographic Information Systems (GIS) and the application of geospatial analysis methods in engineering.

CVEG 5322 Design of Bridges: 3 semester hours.

Design of reinforced concrete and prestressed concrete, steel beam, continuous beam girder bridges; introduction to design of piers, abutments and bearings; bridge construction and fabrication.

Prerequisites: CVEG 5213 or CVEG 5305.

CVEG 5363 Advanced Foundation Design: 3 semester hours.

Introduction to Foundation Engineering, Subsoil Exploration techniques, Design of Shallow and Deep Foundation.

Clinical Psychology (CPSY)

Courses

CPSY 7163 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 7282 Practicum I: 2 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 7283 Practicum II: 2 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 7284 Practicum III: 2 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 7285 Practicum IV: 2 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, staff and case conferences.

CPSY 7286 Practicum V: 2 semester hours.

Provides supervised experience in the assessment, management and treatment of clients. Students work in an the PV Psychological Clinic or an approved institutional setting such as a prison, court, special treatment clinic, hospital or rehabilitation setting. Training includes interviewing and taking case histories, observations, staff and case conferences.

CPSY 7287 Practicum VI: 2 semester hours.

Provides supervised experience in the assessment, management and treatment of clients. Students work in the PV Psychological Clinic or an approved external setting such as a prison, court, special treatment clinic, hospital or rehabilitation setting. Training includes interviewing, taking case histories, interventions, assessments and case conferences.

CPSY 7362 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 7365 Thesis I: 3 semester hours.

Independent and original research leading to the completion of an acceptable empirical master's thesis.

CPSY 7366 Thesis II: 3 semester hours.

Independent and original research leading to the completion of an acceptable empirical master's thesis.

CPSY 7367 Thesis III: 3 semester hours.

Independent and original research leading to the completion of an acceptable empirical master's thesis.

CPSY 7368 Thesis IV: 3 semester hours.

Independent and original research leading to the completion of an acceptable empirical master's thesis.

CPSY 7370 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 neurophysiologic aspects of cognition are reviewed as well as the history and philosophy of cognitive psychology.

CPSY 7371 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 7373 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 7374 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 7375 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 7376 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 7378 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 7379 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 7380 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; ethnical, 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 7381 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 7382 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 7383 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 7384 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 7385 Practicum IV: 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, staff and case conferences.

CPSY 7386 Practicum V: 3 semester hours.

Provides supervised experience in the assessment, management and treatment of clients. Students work in an the PV Psychological Clinic or an approved institutional setting such as a prison, court, special treatment clinic, hospital or rehabilitation setting. Training includes interviewing and taking case histories, observations, staff and case conferences.

CPSY 7387 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 7388 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 7389 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 7391 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 7393 History and 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 7394 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 7395 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 7396 Advanced Statistical Techniques: 3 semester hours.

Multivariate statistical techniques including multiple regression, logistic regression, discriminant analysis, multivariate analysis of variance, canonical correlation, factor analysis, cluster analysis, and multi-dimensional scaling.

CPSY 7397 Family Systems and Therapy: 3 semester hours.

A review of models of family therapy. This course offers an understanding of theories of family systems in contexts of varying family structures, race, ethnicity, and gender. The content includes the development of specific skills to identify, diagnose and treat family problems. The course will present strategies and techniques for family interventions.

CPSY 7398 Cognitive Behavioral Therapy: 3 semester hours.

This course will provide knowledge of various cognitive-behavioral models of common psychological disorders. Students will learn the theory underlying the Cognitive-Behavioral approach as well as learn to conceptualize cases from the a cognitive-behavioral perspective. Students will review empirical data relevant to better understand the evidence and efficacy of implementing the cognitive-behavioral approach with specific disorders. Students will also have the opportunity to demonstrate their understanding of the subject matter in individual and group training exercises.

CPSY 8194 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. Students enroll in this course is during the first semester of the internship year.

Prerequisites: (CPSY 7382 or CPSY 7823) and (CPSY 7383 or CPSY 7833).

CPSY 8195 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. Students enroll in this course during the second semester of the internship year.

Prerequisites: CPSY 8194 or CPSY 8941.

CPSY 8196 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 8195 or CPSY 8951.

CPSY 8391 Dissertation I: 3 semester hours.

Independent and original research leading to an acceptable doctoral dissertation.

CPSY 8392 Dissertation II: 3 semester hours.

Independent and original research leading to an acceptable doctoral dissertation.

CPSY 8393 Dissertation III: 3 semester hours.

Independent and original research leading to an acceptable doctoral dissertation.

CPSY 8394 Dissertation IV: 3 semester hours.

Independent and original research leading to an acceptable doctoral dissertation.

CPSY 8694 Internship I: 6 semester hours.

Internship is a full-time placement at a site approved and accredited by the American Psychological Association.

CPSY 8698 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 1160 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 1307 Introduction to Mass Communication: 3 semester hours.

This course offers students an overview of mass communication, which includes discussion of the mass media industries and academic research in the field. Students further develop their critical thinking skills as they dissect the business models of the media industries. They are also encouraged to explore the complex relationship between communication and culture.

COMM 1311 Introduction to 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 1318 Interpersonal Communication: 3 semester hours.

This course will examine personal and interpersonal factors affecting communication in everyday life. Emphasis will be placed upon ways in which interpersonal perception, physical environment, semantic choices, and nonverbal cues affect communication primarily in the context of work, family, and other personal experiences.

COMM 1336 Video Production I: 3 semester hours.

This course is an introduction to basic remote digital video production. It relies on practical exercises illustrating key concepts of preproduction, production, and postproduction.

COMM 1342 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 1311 or COMM 1003.

COMM 2300 Media Literacy: 3 semester hours.

In this course, students will be challenged to think critically about the media content they encounter in their daily lives (e.g., film, television, new media, and social media). Throughout the semester, we will analyze, interpret, and evaluate media texts. We will also examine the forces that drive the media industries and reflection the ways the media influence society and culture. Clips, screenings, and other examples will familiarize students with a variety of cultures and prompt students' consideration of different points of view.

Prerequisites: ENGL 1301 or ENGL 1123.

COMM 2303 Digital Audio Production I: 3 semester hours.

This course will introduce students to the basic elements of audio production, including recording techniques, equipment, production, and editing. Students will also be introduced to the history of radio, radio equipment and techniques as well as hands on production for radio broadcast.

Prerequisites: COMM 1713 or COMM 1307.

COMM 2305 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 1307 or COMM 1713 and (ENGL 1302 or ENGL 1133 or ENGL 1143 or ENGL 2311).

COMM 2311 Broadcast Writing: 3 semester hours.

This course will introduce students to the fundamentals of broadcast journalism. Students will be trained in the range of skills needed to produce audiovisual news content, including researching and writing scripts, conducting interviews, and visual storytelling.

Prerequisites: COMM 2351 or COMM 2513.

COMM 2315 News Writing and Reporting: 3 semester hours.

This course introduces students to the fundamentals of news writing for print and digital media. Students will develop skills in the following areas: identification of newsworthy data, methods of writing leads, as well as writing news and feature stories for publication

Prerequisites: COMM 2351 or COMM 2513.

COMM 2333 Discussion and Small Group Communication: 3 semester hours.

This course emphasizes the role of communication in the dynamics of small group behavior. Group presentations focus on fact-finding, information-sharing, and problem-solving/decision-making processes. Students will learn team-building skills and strengthen their abilities to communicate within a cohesive small group environment.

Prerequisites: COMM 1311 or COMM 1003.

COMM 2335 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 1311 or COMM 1003.

COMM 2339 Screen Writing: 3 semester hours.

This course teaches the fundamentals for developing and writing film and television screenplays while studying story structure, character development, plot, tone, arc, and climax. In addition, students will create pitches, synopses, treatments, a premise, a logline, a short film screenplay, and a writers' room TV pilot while mastering screenwriting software.

Prerequisites: COMM 2351 or COMM 2513.

COMM 2351 Principles of Writing for the Discipline: 3 semester hours.

This course will introduce students to the facets of writing for all of the major concentrations within the field of communication. Students will learn skills for writing in professional development, media, performance, technical writing, and research writing.

Prerequisites: COMM 1307 or COMM 1713 and (COMM 1318 or COMM 2603).

COMM 2355 Communication, Globalization, International Media: 3 semester hours.

This course will allow students access to selected forms of international media. They will explore what globalization is and critically analyze current global issues. Interested students will have an option to participate in an international study abroad experience. Participation in a study abroad program is not a requirement for enrollment.

COMM 2371 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 or COMM 1307.

COMM 2375 Introduction to Performance: 3 semester hours.

Introduce students to the field of oral interpretation and performance studies. Process of creating, communicating, and performing texts from various forms of literature, including poetry, prose, public address, and various forms of media. Includes a focus on the specific challenges and potentialities in writing for performance.

Prerequisites: COMM 1311 or COMM 1003.

COMM 3170 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 3304 Multimedia Audio Production and Design: 3 semester hours.

This course teaches all aspects of recording production sound for dialogue, Foley recording, sound effects, and automated dialogue replacement (ADR), as well as post-production (e.g., sound design, sound editing, and sound mixing) using Final Cut Pro X and Audacity. In addition, students will create, record, edit and mix podcasts, voiceovers, and radio commercials—building a professional voiceover reel, sound mixing reel, and podcast show.

Prerequisites: COMM 1733 or COMM 1336.

COMM 3321 Media Management: 3 semester hours.

This course provides an overview of the business principles for various media platforms in a competitive environment, the legal and procedural aspects of traditional and digital media, and the theoretical aspects of media leadership. Students will apply these concepts through content creation and managing their own mock media companies.

COMM 3351 Communication Law & Ethics: 3 semester hours.

This course examines the idea of free speech as it has developed in the United States with attention to mass media law, including topics such as libel, 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.

COMM 3352 Feature and Magazine Writing: 3 semester hours.

Students learn the techniques used for news gathering and how to write feature articles for newspapers, magazines, and digital media. The course also provides a survey of freelance writing procedures.

Prerequisites: COMM 2351 or COMM 2513.

COMM 3360 Persuasion: 3 semester hours.

In this course, students will study the nature, necessity, and ethics of persuasion. They will explore how persuasion has impacted communication and society through history and current trends. Students will also learn about the many correlated facets of persuasion such as deception, visual persuasion, and also persuasion in advertising. Students will present speeches and group projects with different persuasive concepts driving each. This course explores the nature, necessity, and ethics of persuasion. Students will explore how persuasion has impacted communication and society and also learn about the many correlated facets of persuasion—such as deception, visual persuasion, and persuasion in advertising. They will present speeches and group projects with different persuasive concepts driving each.

Prerequisites: COMM 1311 or COMM 1003.

COMM 3364 Nonverbal Communication: 3 semester hours.

This course covers basic nonverbal communication theories and research.

COMM 3365 Gender Communication: 3 semester hours.

This course introduces students to contemporary communication theory and research on the interconnections between gender and communication.

COMM 3366 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.

COMM 3371 Communication Technology: 3 semester hours.

In this course, students will explore the impact of digital media on culture and society and investigate how these devices shape the way we work, play, think, and interact with others. Students will participate in rich discussions on a number of topics, which could include online romance, media piracy, and virtual communities, among others.

COMM 3372 Digital Video Production I: 3 semester hours.

This course is designed to familiarize students with pre-production, single-camera digital video production, and post-production. In addition, students will learn the technology, art, and practices involved in compelling visual storytelling. By completing this course, students will have a foundational understanding of and gain practical experience in writing, producing, directing, shooting, and editing digital content with a completed project ready for the film festival circuit or broadcast in various media.

Prerequisites: (COMM 1713 or COMM 1307) and ((COMM 2513 or COMM 2351) or (COMM 2523 or COMM 2311) or (COMM 2533 or COMM 2339) or (COMM 2543 or COMM 2315)).

COMM 3373 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 or COMM 1307) and ((COMM 2513 or COMM 2351) or (COMM 2533 or COMM 2339) or (COMM 2543 or COMM 2315)).

COMM 3374 Principles of Advertising: 3 semester hours.

This course introduces students to the world of advertising, including the structure of the industry, the structure of ads, and its role in American culture. Students are trained to think more critically, strategically, and creatively through the development of original advertising campaigns.

COMM 3375 Principles of Public Relations: 3 semester hours.

This course will provide a comprehensive understanding of public relations' role in organizations and society. Students will explore how public relations has developed as a discipline and the contemporary role of public relations in everyday communication between publics. They will learn to write their own press releases, build comprehensive communication plans for organizations, and create media related to those organizations' PR plans.

COMM 3385 Communication as Storytelling: 3 semester hours.

This course examines the ways in which personal and cultural identities are created, shaped, and shared through oral traditions. Using narrative analysis and the writing and performance of texts, students explore what narratives tell about themselves, individually and communally.

Prerequisites: COMM 2375.

COMM 3399 Independent Study: 1-3 semester hour.

Readings, research, and /or field work on selected topics at the 1000 through the 3000 levels.

COMM 4344 The Message: Hip Hop as Communication: 3 semester hours.

Students will learn to critically analyze hip hop media texts and utilize these texts as lenses for examining contemporary society. Students will not only develop a greater appreciation for hip hop as a communicative tool (not unlike classic novels, poetry, and other literary forms), but they will also be challenged to think deeply and reflectively about a wide variety of social issues.

Prerequisites: ENGL 1133 or ENGL 1302 or ENGL 1143 or ENGL 2311.

COMM 4350 Media Criticism: 3 semester hours.

This course introduces students to the theories, concepts, and debates of media studies scholarship. Students will engage in intensive academic reading and writing. Topics include, but are not limited to media representation, social construction of reality, media activism, and globalization.

Prerequisites: COMM 2351 or COMM 2513.

COMM 4351 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 2351 or COMM 2513.

COMM 4352 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 2351 or COMM 2513.

COMM 4353 Communication Research: 3 semester hours.

This course focuses on the academic research process—from defining research questions to designing studies and reporting results. Students will learn about the most common data-gathering and measurement techniques in Communication research, including experiments, surveys, content analysis, historical analysis, and qualitative methods.

Prerequisites: COMM 2351 or COMM 2513.

COMM 4354 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 2351 or COMM 2513.

COMM 4360 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.

COMM 4361 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.

COMM 4369 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 2351 or COMM 2513.

COMM 4370 Professional Internship: 3 semester hours.

This course requires students to spend the semester working in a professional setting. Internships must be secured in a mass communication-related field and approved in advance by the instructor. Media professionals and faculty provide direct supervision and feedback on the student's performance. The internship must be off campus (unless by permission of department head). This course can be repeated for up to 6 semester credit hours.

COMM 4371 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: (ENGL 1133 or ENGL 1302 or ENGL 1143 or ENGL 2311) and COMM 2375.

COMM 4372 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 3372 or COMM 3723.

COMM 4373 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 3372 or COMM 3723.

COMM 4375 Advanced Performance: 3 semester hours.

Examination of the interconnections between the narrative structure of everyday life and using performance as a metaphor and a method of studying identity and culture. Includes research of texts and performance practices and how these impact social issues.

Prerequisites: COMM 2375.

COMM 4379 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 2351 or COMM 2513.

COMM 4389 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.

Prerequisites: COMM 2351 or COMM 2513.

COMM 4399 Independent Study: 1-3 semester hour.

Readings, research, and/or field work on selected topics.

Community Development (CODE)

Courses

CODE 5301 Introduction to Community Development Planning and Theory: 3 semester hours.

This course will examine the theoretical and the historical evolution of planning and community development strategies and models designed to increase the physical, social, and economic assets of the built environment from a community to global level; the role and responsibilities of the development process in the profession; spatial and temporal aspects of urban development; problems and consequences of planned and unplanned changes in urban society; and an understanding of the values and ethics affecting public and private actors shaping the practice of planning.

CODE 5305 Community Development Planning Studio: 3 semester hours.

This course explores practical research methods, planning systems, and spatial application techniques used as interactive tools in procedural planning, performance, and implementation processes to shape the future of communities, emphasizing approaches to enhancing communities.

CODE 5307 Community Development Financing: 3 semester hours.

Non-traditional financing strategies will be studied to support projects addressing the development of distressed communities.

CODE 5308 Community Analysis, Demography and GIS: 3 semester hours.

This course will introduce students to the fundamental analytical skills of studying and understanding the structure, function, goals, standards, and performance of a community. This course provides students to the use of demography and other geospatial technologies in the design and development of communities. This course is designed to enhance student's research skills with quantitative and qualitative methods and reasoning of data collection, analysis, and forecasting, while applying practical geospatial modeling for community development initiative inclusive decision making for sustainable planning outcomes in the area of Community Development.

CODE 5310 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 5312 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 5320 Introduction to Community Leadership: 3 semester hours.

Identifying and anticipating future leaders of communities through selected programs.

CODE 5321 Negotiation, Mediation and Facilitation: 3 semester hours.

Skill building strategies and exercises in critical thinking, listening and identity based communications.

CODE 5330 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 5331 Community Growth Management and Leadership: 3 semester hours.

This course provides an in-depth examination of global urban and regional development, planning, emphasizing strategic decisions and policies to improve urban areas and foster thriving communities. It addresses challenges linked to urbanization and regional development.

CODE 5332 Community Analysis: 3 semester hours.

The basic skills of studying and understanding the structure, function, goals, standards and performance of a community.

CODE 5334 Community Research: 3 semester hours.

Methods for recognizing information needs, sources and applications.

CODE 5335 Comprehensive Project Studio: 3 semester hours.

A comprehensive culminating project that synthesizes and demonstrates students' planning knowledge, skills, and tools acquired in previous courses; the course advances students' written, oral, and graphic communication skills through a practical community development project.

Co-requisite: CODE 5308.

CODE 5336 Community Physical Structure: 3 semester hours.

The physical context of the community and its impact on community health and development.

CODE 5351 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 5352 Campaigns and Gifts: 3 semester hours.

Campaign strategic planning and techniques used in driving donor decisions.

CODE 5354 Research for Capital and Grant Development: 3 semester hours.

Research for fundraising efforts.

CODE 5360 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 5361 Land Development Law and Use Strategies: 3 semester hours.

This course will introduce students to the principles of land development, the legal context of planning, and land use control strategies. The course will provide the overall development process for planning, the legal framework for planning institutions involving legislative and administrative procedures, ethical and managerial practices, and the understanding of regulatory and non-regulatory urban development planning processes of land-use impacts in the built environment at the local, state, and federal levels. The course also emphasizes equitable and inclusive decision making for sustainable planning outcomes in the area of Community Development.

CODE 5375 International Community Development Policies and Practices: 3 semester hours.

The role of government and private organizations in developing distressed foreign communities.

CODE 5380 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 5381 Principle 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 5308 or CODE 5803.

CODE 5382 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 5383 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 5382 or CODE 5823.

CODE 5384 Promulgated Contract Forms: 3 semester hours.

As one of the mandatory pre-licensing courses, this foundational course will teach the ins and outs of the Texas Real Estate Commission Promulgated Contract Forms.

CODE 5385 Real Estate Finance: 3 semester hours.

As one of the mandatory pre-licensing courses, this course provides a sound understanding of the specialized financing procedures that are used today in the real estate industry.

CODE 5601 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 5640 Internship: 6 semester hours.

Approved internship with a community development related organization.

CODE 5699 Independent Study: 6 semester hours.

Individual reading, research and/or field work in selected topics.

Computer Engineering Tech (CPET)

Courses

CPET 1101 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 1102.

CPET 1102 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 1101.

CPET 1301 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 1302 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 or CPET 1301.

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) or CPET 2311.

CPET 2311 Digital Logic Cir: 0 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.

CPET 2350 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 or MATH 2414.

CPET 3116 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 2311 or CPET 2113) and (CPET 3316 or CPET 3163).

CPET 3123 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 2311 or CPET 2113) and (CPET 3323 or CPET 3233).

CPET 3301 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 3316 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 2311 or CPET 2113) and (CPET 3116 or CPET 3161).

CPET 3323 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 2311 or CPET 2113) and (CPET 3123 or CPET 3231).

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 4105 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 3116 or CPET 3161 and (CPET 3316 or CPET 3163) and CPET 4305 (may be taken concurrently).

CPET 4106 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 2311 or CPET 2113) and (CPET 2350 or CPET 2503) and CPET 4306 (may be taken concurrently).

CPET 4136 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 4106 or CPET 4061 and (CPET 4306 or CPET 4063) and CPET 4336 (may be taken concurrently).

CPET 4138 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 2311 or CPET 2113) and CPET 4338 (may be taken concurrently).

CPET 4208 Senior Project I: 0 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 4209 Senior Project II: 0 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 4208 or CPET 4082.

CPET 4305 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 3116 or CPET 3161 and (CPET 3316 or CPET 3163) and CPET 4105 (may be taken concurrently).

CPET 4306 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 2311 or CPET 2113 and CPET 2111 and (CPET 2350 or CPET 2503) and CPET 4106 (may be taken concurrently).

CPET 4310 Special Topics: 3 semester hours.

Selected current and emerging topics in Engineering Technology.

CPET 4336 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 4106 or CPET 4061 and (CPET 4306 or CPET 4063) and CPET 4136 (may be taken concurrently).

CPET 4338 Digital Signal Processing Applications: 3 semester hours.

Analog-to-digital and digital-to-analog conversion, discrete-time systems, discrete Fourier Transforms, applications in areas of speech recognition, and digital image processing. Architecture and programming of DSP processors.

Prerequisites: CPET 2111 and (CPET 2311 or CPET 2113) and CPET 4138 (may be taken concurrently).

CPET 4399 Independent Study: 1 semester hour.

Reading, research, and/or laboratory work on selected topics in Engineering Technology.

Computer Information Systems (CINS)

Courses

CINS 5301 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 5304 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 5305 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 or COMP 1422.

CINS 5306 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: CINS 1224 or CINS 1422.

CINS 5307 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 5317 Information Retrieval: 3 semester hours.

An introduction to information retrieval theory and algorithms. The topics include indexing, vector space models, evaluation, probabilistic and language models, web search engine, text classification, link analysis, XML retrieval, etc. with their implementation and applications.

Prerequisites: CINS 5306 or CINS 5063.

CINS 5318 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 subsystem definition and design, abstraction, information hiding, modularity, and reuse.

Prerequisites: CINS 5306 or CINS 5063.

CINS 5319 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 or CINS 5306 and (CINS 5033 or CINS 5305).

CINS 5330 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 5331 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 5304 or CINS 5043) and (CINS 5306 or CINS 5063).

CINS 5338 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 process are discussed, along with techniques for managing software products from concept through development.

Prerequisites: CINS 5305 or CINS 5033 and (CINS 5306 and CINS 5063).

CINS 5391 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 5398 Special Topics in Computer Information Systems: 3 semester hours.

A course design to expose new and emerging concepts and technologies.

Prerequisites: CINS 5306 or CINS 5063.

CINS 5690 Master 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.

Computer Science (COMP)

Courses

COMP 1101 Intro to Basic Engr & Comp Sci: 1 semester hour.

Intro to basic engineering and computer science concepts. Students will become aware of various discipline of engineering and computer science, ethical and professional responsibilities in these fields, creativity and design. It also prepares students for professional engineering world. Provides career planning tools; discusses expected and financial goals and how such goals contribute to short-and-long term personal, professional, academic, and financial goals. Professional, ethical, and moral behavior and proper communication for the workplace.. This course enables engineers to take full advantage of internships, co-ops, engineering jobs, and the classroom.

Prerequisites: COMP 1021 (may be taken concurrently) or COMP 1102 (may be taken concurrently).

COMP 1102 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 1101 or COMP 1011.

COMP 1121 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 1316 (may be taken concurrently) or MATH 1123 (may be taken concurrently)) or (MATH 2413 (may be taken concurrently) or MATH 1124 (may be taken concurrently)) or (MATH 1511 (may be taken concurrently) or MATH 1115 (may be taken concurrently)).

Co-requisite: COMP 1336.

COMP 1122 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 1336 or COMP 1213) and (COMP 1121 or COMP 1211) and (MATH 2413 (may be taken concurrently) or MATH 1124 (may be taken concurrently)).

Co-requisite: COMP 1337.

COMP 1300 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 1315 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 1336 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 1511 (may be taken concurrently)) or (MATH 1123 (may be taken concurrently) or MATH 1316 (may be taken concurrently)) or (MATH 1124 (may be taken concurrently) or MATH 2413 (may be taken concurrently)).

Co-requisite: COMP 1121.

COMP 1337 Computer Science II: 3 semester hours.

Continuation of COMP 1336 with continued emphasis on program development techniques, 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 1336 or COMP 1213) and (COMP 1121 or COMP 1211) and (MATH 2413 (may be taken concurrently) or MATH 1124 (may be taken concurrently)).

Co-requisite: COMP 1122.

COMP 2300 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 2302 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 1315 or COMP 1213 or COMP 1336.

COMP 2303 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 1422 or COMP 1224) or ((COMP 1221 or COMP 1122) and (COMP 1337 or COMP 1223)).

COMP 2310 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 propositional 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 1422 or COMP 1224) or ((COMP 1221 or COMP 1122) and (COMP 1337 or COMP 1223)).

COMP 2313 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 1422 or COMP 1224) or ((COMP 1221 or COMP 1122) and (COMP 1337 or COMP 1223)).

COMP 2314 Introduction to Java: 3 semester hours.

An introduction to the Java Programming language. Includes coverage of Java Development Kit (JKD), 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 2315 Python Programming Language: 3 semester hours.

An introduction to the fundamentals of python programming. It covers various topics, including variables and data types, functions, file input and output, and recursion. Packages for data processing and analytics such as Numpy, Scipy, Pandas, Scikit-learn, and Matplotlib will be introduced. Students will program using popular platforms like PyCharm and Jupyter notebook.

Prerequisites: COMP 1337 or COMP 1223.

COMP 2319 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 1337 or COMP 1223) and (COMP 1122 or COMP 1221).

COMP 2336 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 1422 or COMP 1224) or ((COMP 1337 or COMP 1223) and (COMP 1122 or COMP 1221)).

COMP 3301 Embedded Systems: 3 semester hours.

Examines how to design, program, and test embedded systems that interact with the physical world. Topics include microcontrollers, hardware interfacing, sensors, and real time programming.

Prerequisites: COMP 2336 or COMP 2013.

COMP 3303 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 2303 or COMP 2033.

COMP 3305 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 2336 or COMP 2013) and (COMP 2310 or COMP 2103).

COMP 3306 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 2336 or COMP 2013) and (COMP 2319 or COMP 3304 or COMP 3043).

COMP 3311 Introduction to Data Science: 3 semester hours.

This course introduces students to Big Data and Data Analysis techniques. Topics covered include data science and analytics, introduction to programming languages suitable for data analysis, data explorations, visualization technique for large datasets and basics of machine learning. The course consists of weekly lectures followed by hands-on labs.

Prerequisites: COMP 1337 or COMP 1223.

COMP 3321 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 2336 or COMP 2013.

COMP 3322 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 2336 or COMP 2013.

COMP 3331 Information Privacy: 3 semester hours.

An introduction to the fundamentals of information privacy. It covers various topics, including data anonymization, differential privacy, location privacy, web and network privacy; multiparty computation, privacy in internet of Things; privacy in social networks, and secure data outsourcing. The course also provides students with hands-on experience in information privacy.

Prerequisites: COMP 2336 or COMP 2013.

COMP 3332 Cryptography: 3 semester hours.

An introduction to the fundamentals of cryptography. It covers various topics, including classic data encryption and decryption schemes, private and public key systems, message authentication, digital signature, and hash function. The course also provides students with hands-on experience in cryptograph.

Prerequisites: COMP 2310 or COMP 2103.

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 Xcode and programming language Objective-C for iOS, and Eclipse for Android.

Prerequisites: COMP 2013 or COMP 2336.

COMP 3343 Internet of Things: 3 semester hours.

Introduction to the Internet of Things(IoT), evolution and market around Internet of things, embedded systems and distributed systems to support IoT devices, communication and data storage in IoT, IoT design considerations and constraints, current components of IoT and future trends. The goal of this course is to help students with solid technical knowledge and skills to build IoT systems from the ground up. The course will focus on creative thinking and on hands-on project development.

Prerequisites: COMP 2013 or COMP 2336.

COMP 3395 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 4100 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 4107 Computer Science Special Topic: 1 semester hour.

This special topic course covers critical topics and skills, such as tech-interview, start-up tech entrepreneurship, emerging new tech development seminar, etc.

COMP 4207 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 3322 or COMP 3223 and (COMP 3306 or COMP 3063) and (COMP 3305 or COMP 3053) and (COMP 3395 or COMP 3953).

Co-requisite: COMP 4100.

COMP 4208 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 4207 or COMP 4072.

COMP 4307 Special Topics: 1-3 semester hour.

Studying selected current and emerging topics in Computer Science. Courses may be repeated for credit when topics vary.

COMP 4311 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 4312 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 3306 or COMP 3063.

COMP 4314 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 2336 or COMP 2013) and (COMP 2310 or COMP 2103).

COMP 4315 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 or MATH 3302.

COMP 4316 Machine Learning: 3 semester hours.

Topics cover fundamental machine learning algorithms and paradigms including information-based learning, probability-based learning, instance-based learning, error-based learning, neural networks and deep learning, unsupervised learning, etc. Focus on implementation and data visualization using modern programming languages such as Python and R.

Prerequisites: (COMP 2336 or COMP 2103) or (COMP 2013 or COMP 2336).

COMP 4317 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 2310 or COMP 2103.

COMP 4318 Information Retrieval: 3 semester hours.

An introduction to information retrieval theory and web searching algorithms. The topics include indexing, vector space models, evaluation, probabilistic and language models, web search engine, text classification, link analysis, web crawling, etc., with their implementation and applications.

Prerequisites: COMP 2336 or COMP 2013 and (MATH 3302 or MATH 3023).

COMP 4323 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 4312 or COMP 4123.

COMP 4331 Computer Forensics: 3 semester hours.

An introduction to the fundamentals of computer forensics, it covers various topics, including cyber crimes, evidence extraction and control, data recovery, network forensics, mobile platform forensics, software reverse engineering, and legal issues. The course also provides students with hands-on experience in digital forensics.

Prerequisites: COMP 3306 or COMP 3063.

COMP 4332 Mobile Security: 3 semester hours.

introduction to the principles of mobile security. It covers various topics, including wireless and mobile network security, security models of mobile device platforms, mobile service security, and security of the Internet of Things. The course also provides students with hands-on experience in the security of various mobile systems.

Prerequisites: COMP 2336 or COMP 2013.

COMP 4333 Ethical Hacking and Penetration Testing: 3 semester hours.

This course teaches students the underlying principles and many of the techniques associated with the cyber-security practice known as penetration testing or ethical hacking. The course also provides students with hands-on experience on this topic.

Prerequisites: (COMP 3063 or COMP 3306) and (COMP 4123 or COMP 4312).

COMP 4384 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 3322 or COMP 3223.

COMP 5129 Research: 1 semester hour.

Topics cover literature review and summarization, scientific article writing, problem analysis and formulation, references and citation.

COMP 5300 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 5311 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 4311 or COMP 4113.

COMP 5312 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 3304 or COMP 3043.

COMP 5313 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 3306 or COMP 3063.

COMP 5314 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 or CINS 5305.

COMP 5315 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 3305 or COMP 3053.

COMP 5316 Artificial Intelligence: 3 semester hours.

An introduction to artificial intelligence. The topics include intelligent agents, problem solving through search, knowledge representation and reasoning, planning, probabilistic reasoning and models, reinforcement learning, and their applications.

Prerequisites: COMP 2336 or COMP 2013 and (MATH 3302 or MATH 3023).

COMP 5317 Computer Vision: 3 semester hours.

An introduction to the principles of computer vision. It covers various topics, including fundamentals of image formation, feature detection and matching, motion estimation and tracking, image classification, and deep learning with neural networks. The course also provides students with hands-on experience in developing computer vision algorithms.

Prerequisites: COMP 2336 or COMP 2013.

COMP 5324 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 5313 or COMP 5133.

COMP 5326 Machine Learning: 3 semester hours.

An introduction to machine learning theory and techniques including supervised and unsupervised learning, learning models, theoretical and empirical evaluation. Topics include decision tree, Bayesian learning, instance-based learning, regressions, support vector machine, neural networks, deep learning, reinforcement learning, etc.

Prerequisites: COMP 2336 or COMP 2013 and (MATH 3302 or MATH 3023).

COMP 5327 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 5328 Natural Language Processing: 3 semester hours.

An introduction to the natural language processing theory, including language models, automatic syntactic processing, semantic processing, discourse, and pragmatics. This course will cover typical applications of natural language processing, such as information extraction, sentiment analysis, question answering, and machine translation.

Prerequisites: COMP 2336 or COMP 2013 and (MATH 3302 or MATH 3023).

COMP 5329 Text Mining: 3 semester hours.

Study text mining principles for high-quality information retrieval, including text structuring, patterns deriving, interpretation of the output, and empirical evaluation of the algorithms. Topics cover data analysis, text categorization, text clustering, concept extraction, text summarization, sentiment analysis, topic models, etc., with their implementation and applications.

Prerequisites: (COMP 2336 or COMP 2013) and (MATH 3302 or MATH 3023).

COMP 5332 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 CINS 5304 or COMP 4312 or COMP 4123) and (CINS 5063 or CINS 5306 or COMP 3053 or COMP 3305).

COMP 5342 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 2336 or COMP 2013 or CINS 5063 or CINS 5306.

COMP 5389 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 5391 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 5690 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.

Construction Science (CONS)

Courses

CONS 3301 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 structural stability and integrity in construction projects.

Prerequisites: MATH 2318 or MATH 2183.

CONS 4341 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 4342 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, project delivery methods, mobilization, management, and close-out.

CONS 4344 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 4345 Facilities Management: 3 semester hours.

Focus on the various aspects of facilities and property management, including budgeting for operations and management, energy management, change management, design-build changes, in-house versus out-source maintenance, and contracting options.

CONS 4346 Construction Internship: 3 semester hours.

Approved internship in the construction industry.

CONS 4355 Construction Delivery Systems: 3 semester hours.

Methods and management techniques utilized in the building process, including procurement options, basis of reimbursement, management methods, and construction delivery methods.

CONS 4360 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; development of construction safety plan; safety on the job site; OSHA and related regulations.

CONS 4363 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 4374 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 modelling for construction optimization and sustainable building initiatives.

Prerequisites: ARCH 2223 or ARCH 1315.

CONS 4375 Scheduling and Mobilization: 3 semester hours.

Project scheduling procedures to include computer applications and resource loading and leveling; network generation and analysis; 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 4377 Construction Project Controls: 3 semester hours.

Introduction of students to construction-related financial documents; includes the schedule of values, labor and operations cost reports, construction budgets, schedule and budget integration, and progress analysis and forecast through earned value management.

CONS 4395 Mediation: 3 semester hours.

Construction conflict resolution with a focus on negotiation, mediation, arbitration alternatives to litigation will be addressed. The processes and skillsets professionals must possess to effectively engage in alternative dispute resolution strategies effectively will be covered through lectures, writing assignments, readings, and role-playing.

CONS 4397 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 the topic varies.

CONS 4399 Independent Study: 1-3 semester hour.

Individual reading, research and/or field work in selected topics.

CONS 4640 Construction Internship: 3-6 semester hour.

Approved internship in the building construction industry occurring in either the Fall Semester or Spring Semester.

Counseling (CNSL)

Courses

CNSL 5300 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 5321 or CNSL 5213 and (CNSL 5314 or CNSL 5143) and (CNSL 5302 or CNSL 5023).

CNSL 5301 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 5302 or CNSL 5023.

CNSL 5302 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 5303 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 5304 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 5321 or CNSL 5213 and (CNSL 5314 or CNSL 5143) and (CNSL 5302 or CNSL 5023) and (CNSL 5315 or CNSL 5153).

CNSL 5305 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 5321 or CNSL 5213) and (CNSL 5314 or CNSL 5143) and (CNSL 5302 or CNSL 5023) and (CNSL 5315 or CNSL 5153).

CNSL 5306 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 150 clock hours required.

Prerequisites: (CNSL 5301 or CNSL 5013) and (CNSL 5312 or CNSL 5123).

CNSL 5307 Clinical School Internship 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 5306 or CNSL 5063.

CNSL 5308 Psychology of Abnormal Behavior: 3 semester hours.

An examination of dysfunction in human behavior, with emphasis on description, causation, and treatment.

Prerequisites: CNSL 5213 or CNSL 5321 and (CNSL 5314 or CNSL 5143) and (CNSL 5023 or CNSL 5302) and (CNSL 5153 or CNSL 5315).

CNSL 5309 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 5311 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 5312 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 5314 or CNSL 5143) and (CNSL 5302 or CNSL 5023) and (CNSL 5315 or CNSL 5153).

CNSL 5313 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 5314 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 5315 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 5316 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 5309 or CNSL 5093.

CNSL 5318 Special Topics in Counseling: 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 5319 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 5320 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 5321 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 5350 School Counseling Internship II: 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 5301 or CNSL 5013 and (CNSL 5312 or CNSL 5123).

CNSL 5351 School Counseling Internship 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 5350 or CNSL 5503.

CNSL 5399 Independent Study: 3 semester hours.

Readings, research, and/or field work on selected topics.

Criminal Justice (CRIJ)

Courses

CRIJ 1301 Introduction to 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.

CRIJ 1306 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.

CRIJ 1307 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 sub-cultural influences on crime, civic engagement and the ability to engage effectively in regional, national and global communities toward crime prevention.

CRIJ 1313 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.

CRIJ 2301 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.

CRIJ 2311 Intro Geog Info 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. Cross-Listed Course: GEOG 2311.

CRIJ 2313 Correctional 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.

CRIJ 2314 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.

CRIJ 2323 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.

CRIJ 2328 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.

CRIJ 2343 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.

CRIJ 2344 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.

CRIJ 2345 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.

CRIJ 2348 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 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, an importance of the Emergency Manager will be discussed. Finally, legal issues involving emergency management will be presented.

CRIJ 2366 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.

CRIJ 2372 Theory 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.

CRIJ 2374 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.

CRIJ 2381 Fundamentals of Cybersecurity: 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.

CRIJ 2391 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.

CRIJ 3331 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.

CRIJ 3346 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 other international crimes will be reviewed.

CRIJ 3348 Cyber Terrorism and Cyber Defense: 3 semester hours.

An introduction to the realities and possibilities of cyberterrorism both from domestic and international actors. The course offers examinations of national security policies and strategies employed or available as options for cyber defense.

CRIJ 3351 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.

CRIJ 3352 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.

CRIJ 3353 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.

CRIJ 3354 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.

CRIJ 3362 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.

CRIJ 3365 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.

CRIJ 3373 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.

CRIJ 3382 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.

CRIJ 3393 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.

CRIJ 4332 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.

CRIJ 4333 Enterprise Cyber Security: 3 semester hours.

The course will provide students with essential knowledge in data security and the technology involved in securing data. It will also provide a forum to bring in current issues in the MIS area such as information security, big data, mobile/wireless technology, cloud computing, and project management. Students will gain insight into the importance of cybersecurity and the integral role of cybersecurity professionals in data security. Cross-Listed Course: MISY 4332

Prerequisites: MISY 3332 or MISY 3323 and (MISY 2301 or MISY 2013) and (MISY 1305 or MISY 1013).

CRIJ 4347 Digital Forensics Investigations: 3 semester hours.

An introduction to the principles, practices, and common tools currently utilized by digital forensic investigators. The course offers practice utilizing the procedures and techniques for digital investigators involving various technological devices, networks, and cloud spaces. It reviews the relevant investigative standards for digital evidence in legal proceeding and expected credentials to utilize various digital investigative devices responsibly.

CRIJ 4349 Contemporary Issues: 3 semester hours.

Focus on recent significant and controversial issues which affect the administration of justice especially in law enforcement, the courts and corrections.

CRIJ 4354 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.

CRIJ 4355 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.

CRIJ 4356 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 enterprise crime investigations along with the investigative tools and techniques will be discussed.

CRIJ 4361 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.

CRIJ 4362 Evidence Processing: 3 semester hours.

The course introduces students to analysis of Latent Print and trail (blood, tire tracks, liquids, etc.) processing. Primary emphasis is on fingerprint evidence, crime scene management, recognition, documentation, preservation, and processing of crime scene evidence.

CRIJ 4365 Constitutional Rights of the Criminally Accused: 3 semester hours.

A study of the rights of the criminally accused according to the United States Constitution.

CRIJ 4379 Women in Criminal Justice: 3 semester hours.

An Ideological and historical analysis of the role of women and criminal justice as reformers, professional, scholars and as offender.

CRIJ 4383 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: CRIJ 3382.

CRIJ 4391 Comparative Criminal Justice Systems: 3 semester hours.

An analysis of criminal justice systems and institutions outside of the United States.

CRIJ 4392 Criminology: 3 semester hours.

Focus will be a comprehensive analysis of the sociological, psychological and biological aspects of deviant human behavior.

CRIJ 4395 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).

CRIJ 4396 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.

CRIJ 4398 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.

CRIJ 4399 Independent Study: 3 semester hours.

Readings, research or fieldwork on selected topics.

CRIJ 4641 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.

CRJ 4671 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.

Criminal Justice (CRJS)

Curriculum & Instruction (CUIN)

Courses

CUIN 3300 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 3301 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 4122 TExES Prep-Hist/Social Studies: 1 semester hour.

This course is designed to help students prepare to take the Texas Examination of Educator Standards (TExES) in History/Social Studies. Study of social studies curriculum, materials, and selected instructional strategies. This course is typically taken the semester before Student Teaching, or during the junior or senior year after admission to College of Education and those who are doing alternative certification.

Prerequisites: HIST 1313 or HIST 1301 and (HIST 1323 or HIST 1302) and (HIST 1333 or HIST 2301) and (POSC 1113 or POSC 2305) and (POSC 1123 or POSC 2306).

CUIN 4300 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 4301 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 4310 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 3300 or CUIN 3003) and (CUIN 3301 or CUIN 3013).

CUIN 4311 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 3300 or CUIN 3003) and (CUIN 3301 or CUIN 3013).

CUIN 4340 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.

Prerequisites: CUIN 4310 or CUIN 4103 and (CUIN 4311 or CUIN 4113).

CUIN 4343 Student Teaching/Early Childhood Education: 3 semester hours.

Supervised practicum experiences in a field setting devoted to early childhood classroom instruction

Prerequisites: CUIN 4310 or CUIN 4103 and (CUIN 4311 or CUIN 4113).

CUIN 4344 Student Teaching/Special Education: 3 semester hours.

Supervised practicum experiences in a field setting devoted to special education classroom instruction.

Prerequisites: CUIN 4310 or CUIN 4103 and (CUIN 4311 or CUIN 4113).

CUIN 4381 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.

Prerequisites: CUIN 4310 or CUIN 4103 and (CUIN 4311 or CUIN 4113).

CUIN 4641 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.

Prerequisites: CUIN 4310 or CUIN 4103 and (CUIN 4311 or CUIN 4113).

CUIN 4682 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.

Prerequisites: CUIN 4310 or CUIN 4103 and (CUIN 4311 or CUIN 4113).

CUIN 5300 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 5301 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 5302 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 5300 or CUIN 5003) and (CUIN 5301 or CUIN 5013).

CUIN 5303 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.

Curriculum (CURR)

Courses

CURR 1100 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 1300 or CURR 1013.

CURR 1300 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 1303 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 1301 or ENGL 1123 and (ENGL 1302 or ENGL 1133).

CURR 2101 Step 1: Inquiry Approaches to Teaching: 1 semester hour.

STEM teaching is explored in this course through the introduction to the theory and practice of inquiry-based science and mathematics lesson planning. Students experience planning and implementation of lessons through designing and preparing them for elementary school settings.

CURR 2102 Step 2: Inquiry-Based Lesson Design: 1 semester hour.

STEM teaching is further explored in this course by building upon and practicing inquiry-based lesson design and questioning skills that were developed in Step 1 and experiencing teaching with technology through demo lessons. Students become familiar with the middle school setting by observing and discussing the middle school environment and by teaching lessons to middle school students.

Prerequisites: CURR 2101.

CURR 2300 Global Influences on Teacher Education: 3 semester hours.

Introduction to teacher education from a global community perspective through exploration of societal influences on education.

CURR 3325 History and Social Studies Methods: 3 semester hours.

This course focuses on 1) the mastery of historical facts related to US, world, and Texas histories, 2) understanding the various teaching methods used in the social studies classroom, and 3) the development of lesson plans for the EC – 6, and 4-8 Social Studies classrooms. The student will also be introduced to the social studies standards of the Texas Essential Knowledge and Skills (TEKS) for licensure in Texas public schools.

Prerequisites: (HIST 1313 or HIST 1301) and ((HIST 1323 or HIST 1302) or (HIST 1333 or HIST 2301)) and (POSC 1113 or POSC 2305) and (POSC 1123 or POSC 2306).

CURR 3326 Methods of Teaching Science: 3 semester hours.

Science course designed for prospective teachers to develop competence and confidence needed to teach science in K-12 classrooms. This competence involves a level of understanding of the subject matter and pedagogical best practices that include the use of 5E Model lesson planning and implementation. The focus will be on teaching and learning science in the K-12 classroom through the integration of science content, differentiation strategies and assessment tools. As a capstone project, Students will be expected to demonstrate science content knowledge through a 5E Model science lesson designed and taught to students.

CURR 3327 Science for Teachers: 3 semester hours.

This course is designed for K-12 pre-service educators to review physical, life, environmental and earth science to address the TEA content examination in Science. It is designed to hone the science skills so teachers are competent and confident in the instruction of these topics.

CURR 4101 Science Special Topics: 1 semester hour.

Course designed to mentor students in science competitions and/ or conference preparation, manuscript, publications or Content exam preparation. As a second focus, students will be mentored to participate and compete in STEM related competitions for College students. This course may be used to provide individualized preparation for any science content examinations required by the Texas Education Agency.

CURR 4399 Independent Study: 0-3 semester hour.

Readings, research and/or field work on selected topics.

CURR 5300 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 5350 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 5399 Independent Study: 3 semester hours.

Readings, research, and/or field work on selected topics.

Dance (DANC)

Courses

DANC 1103 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 or coeducational.

DANC 1104 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 1110 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 1117 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 1119 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 1126 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 2101 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 2102 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 2106 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 2107 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 2115 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 2202 Fundamentals of Dance: 2 semester hours.

Application of theory and fundamental skills in dance.

DANC 4202 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 1103 or DANC 1031) and (DANC 1119 or DANC 1191) and (DANC 2202 or DANC 2022).

DANC 4203 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 1103 or DANC 1031) and (DANC 1119 or DANC 1191) and (DANC 2202 or DANC 2022).

Digital Media Arts (DGMA)

Courses

DGMA 2317 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 1316 or ARTS 1153.

DGMA 2318 Fundamentals of Interactive Media: 3 semester hours.

An introduction to the principles of interactive design as it applies to user interface and user experience design, with an emphasis on web and mobile application development, technical proficiency, usability, and aesthetic appeal.

Prerequisites: DGMA 2317 or DGMA 2173.

DGMA 2399 Independent Study: 1-3 semester hour.

Individual studies in Digital Media Arts.

DGMA 3312 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 1311 or ARTS 1113) and (ARTS 1312 or ARTS 1123) and (ARTS 1316 or ARTS 1153) and (ARTS 2311 or ARTS 2353) and (ARTS 2336 or ARTS 2363).

Co-requisites: DGMA 3332, DGMA 3334.

DGMA 3313 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 3312 or DGMA 3123.

Co-requisites: DGMA 3333, DGMA 3335.

DGMA 3332 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 1311 or ARTS 1113) and (ARTS 1312 (may be taken concurrently) or ARTS 1123 (may be taken concurrently)) and (ARTS 1316 or ARTS 1153) and (ARTS 2311 or ARTS 2353) and (ARTS 2336 or ARTS 2363).

Co-requisites: DGMA 3312, DGMA 3334.

DGMA 3333 Typography II: 3 semester hours.

Continuation of Typography I incorporating more advanced and complex problems.

Prerequisites: DGMA 3323 or DGMA 3332.

Co-requisites: DGMA 3313, DGMA 3335.

DGMA 3334 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 1311 or ARTS 1113) and (ARTS 1312 or ARTS 1123) and (ARTS 1316 or ARTS 1153) and (ARTS 2311 or ARTS 2353) and (ARTS 2336 or ARTS 2363).

Co-requisites: DGMA 3312, DGMA 3332.

DGMA 3335 Interactive Media: 3 semester hours.

Continuation of DGMA 2318 with a focus on scripting desktop applications and visual communication strategies through the design and creation of 2D video games, user-interface, and animation.

Prerequisites: DGMA 2318 or DGMA 2183.

Co-requisites: DGMA 3313, DGMA 3333.

DGMA 3399 Independent Study: 1-3 semester hour.

Individual studies in Digital Media Arts.

DGMA 4314 Problems in Media Arts I: 3 semester hours.

Examination of visual communication through theoretical studies along with projects combining traditional mediums of art with new and emerging technology.

Prerequisites: DGMA 3313 or DGMA 3133.

Co-requisites: DGMA 4316, DGMA 4318.

DGMA 4315 Problems in Media Arts II: 3 semester hours.

Advance examination of visual communication through theoretical studies along with projects combining traditional mediums of art with new and emerging technology.

Prerequisites: DGMA 4314 or DGMA 4143.

Co-requisites: DGMA 4317, DGMA 4321.

DGMA 4316 Advanced Interactive Media: 3 semester hours.

Examination of methodologies essential to conceptual design and technical knowledge vital to interactive digital art, design, and visual programming through game engines.

Prerequisites: DGMA 3335 or DGMA 3353.

Co-requisites: DGMA 4314, DGMA 4318.

DGMA 4317 Social Media Design: 3 semester hours.

Continuation of DGMA 4316 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 4316 or DGMA 4163.

Co-requisites: DGMA 4315, DGMA 4321.

DGMA 4318 Motion Graphics: 3 semester hours.

Introduction to principles of animation and special effects through graphic storytelling, storyboarding, animatics, screen composition, and compositing.

Prerequisites: DGMA 3333.

Co-requisites: DGMA 4314, DGMA 4316.

DGMA 4321 Senior Studio Thesis: 3 semester hours.

Emphasis on preparing students for Senior Art Exhibition.

Prerequisites: DGMA 4318 or DGMA 4183.

Co-requisites: DGMA 4315, DGMA 4317.

DGMA 4323 Design Practice: 3 semester hours.

Examination of current design industry theories, programs, technologies and trends. Application of the principles of professional practice with an emphasis on integration of the creative thinking methodology with real-world design projects in a studio environment with selected client-partners and guest lecturers. Prerequisites: must be classified as a junior or senior.

DGMA 4399 Independent Study: 1-3 semester hour.

Individual studies in Digital Media Arts.

Drama (DRAM)

Courses

DRAM 1120 Theatre Practicum I: 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 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 1300 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 1310 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 1311 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 1322 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 1330 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 1352 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 1300 or DRAM 1003.

DRAM 2120 Theatre Practicum III: 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 211 I. 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 2322 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 3324 Directing: 3 semester hours.

A basic course in stage direction, including play and character analysis, ground plans, movement, and business. Each student is required to do a detailed prompt book for a one-set play. Each student is required to direct a one-act play. Provides instruction for prospective teachers.

Early Childhood Ed (ECED)

Courses

ECED 3300 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 3301 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 4300 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 4301 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 4302 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.

ECED 4311 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 4312 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.

Economics (ECON)

Courses

ECON 1301 Fundamentals of Economics in a Global Society: 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 a basic understanding of key global economic issues.

ECON 2301 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 2302 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 3309 Seminar in Banking: 3 semester hours.

This course will expose students to key concepts related to banking products (e.g. commercial lending). The course focuses on demanders (customers) and suppliers (banks), the process through which the suppliers identify appropriate demanders while accounting for systematic (economic business cycle) and idiosyncratic risks (customer-specific or supplier-specific).

Prerequisites: ACCT 2302 or ACCT 2123 or ECON 2302 or ECON 2113 or ECON 2301 or ECON 2123.

ECON 3331 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 2302 or ECON 2113 and (ECON 2301 or ECON 2123).

ECON 3332 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 2302 or ECON 2113) and (ECON 2301 or ECON 2123).

ECON 3334 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 2302 or ECON 2113 and (ECON 2301 or ECON 2123).

ECON 4321 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 2302 or ECON 2113.

ECON 4322 Intermediate Macroeconomic Analysis: 3 semester hours.

Analysis of determinants of the aggregate level of employment, output and income of an economy.

Prerequisites: ECON 2301 or ECON 2123 and (ECON 2302 or ECON 2113).

ECON 4334 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 2302 or ECON 2113) and (ECON 2301 or ECON 2123).

ECON 4335 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 2301 or ECON 2113 and ECON 2302 or ECON 2123.

ECON 4399 Independent Study: 1-3 semester hour.

Reading, research, and/or field work on selected topics.

ECON 5300 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 5310 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.

Prerequisites: (ECON 5300 or ECON 5003) or ((ECON 2311 or ECON 2113) and (ECON 2312 or ECON 2123)).

ECON 5331 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 5300 or ECON 5003.

Economics for Executives (EECO)

Courses

EECO 5310 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 micro and macro 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 5310 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 5311 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 5312 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 5314 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 5390 Thesis Research: 3 semester hours.

Selection, preparation, and presentation of a research proposal for purposes of completing thesis requirement.

EDFN 5392 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 5310 or EDFN 5103.

Education Technology (EDTC)

Courses

EDTC 5301 Educational Media and Technology: 3 semester hours.

An examination and study of the role of media and technology in the K-12 classroom. This course focuses on current technology and research for successful integration of technology into instruction.

EDTC 5304 Principles of Instructional Design: 3 semester hours.

Exploration of the history, traditions, and current state of the discipline of instructional design. Emphasis is on designing effective instruction to achieve student learning outcomes.

EDTC 5307 Theories and Models of Instructional Design: 3 semester hours.

Current theories and models of instructional design are explored and evaluated to determine situational use and effectiveness.

Prerequisites: EDTC 5301 and EDTC 5304.

EDTC 5308 Emerging Technologies for Instruction: 3 semester hours.

An exploration of innovative ways to use emerging technology in creating powerful learning environment that will facilitate teaching and learning.

Emphasis is on emerging technologies for instructional use.

Prerequisites: EDTC 5301 and EDTC 5304.

EDTC 5309 Digital Equity in Instructional Design: 3 semester hours.

An analysis of the federal and state requirements for digital equity of instructional materials. Issues of accessibility, ADA compliance, and barriers for effective learning will be examined to provide guidance for creating and remediating learning materials and activities.

Prerequisites: EDTC 5301 and EDTC 5304.

EDTC 5381 Instructional Design Capstone: 3 semester hours.

This is the culminating course for the Masters of Education in Curriculum and Instruction/Instructional Design concentration. Students will work with an instructor or industry client to develop an online course that meets the needs of the Instructor or client, follows best practices in Instructional Design, and meets all accessibility requirements.

Prerequisites: EDTC 5301 and EDTC 5304 and EDTC 5307.

Educational Administration (ADMN)

Courses

ADMN 5300 Fundamentals of 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 5301 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 5302 Public School Law and Human Resource Management: 3 semester hours.

An examination and study of legal principles as they apply to public education.

Prerequisites: ADMN 5310 or ADMN 5103.

ADMN 5303 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 5304 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 5300 or ADMN 5003.

ADMN 5305 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 5306 Problems in Education Administration: 3 semester hours.

Study and analysis of contemporary issues related to the administrative function in an educational setting.

ADMN 5307 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 5308 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 5309 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 5310 Human Resource Management: 3 semester hours.

This course is designed to expand students' knowledge of human resources management and related issues within the framework of educational leadership. In this course, students will engage in discussions based on relevant projects, field experiences, and a variety of activities designed to stimulate and improve understanding and application in the area of human resources management. Additionally, students will analyze and synthesize documents and data used in the management of human resources as it relates to school and/or organization issues.

ADMN 5311 Planning and Managing Educational Facilities: 3 semester hours.

Educational facilities planning with emphasis on design, financing, and management.

ADMN 5312 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 5313 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 5316 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 5309 or ADMN 5093) or (CNSL 5093 or CNSL 5309).

ADMN 5317 Computer Applications for Administrators: 3 semester hours.

Application of computers and selected software to information management, scheduling, and other functions of administrators.

ADMN 5320 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 5321 History of Higher Education in the United States: 3 semester hours.

This course is designed as an introduction to the historical development of higher education from early colonial times to the present. Students will identify and explore global and domestic events that have impacted and have been impacted by the development of higher education in the United States and in other parts of the world. In addition, the course focuses on globally significant as well as unique aspects of US higher education, including electives, extra-curricular activities, and intercollegiate athletics.

ADMN 5322 Institutional Effectiveness and Assessment: 3 semester hours.

This course presents a comprehensive overview of the role, scope, and purposes of institutional effectiveness. The course explores the major functions of institutional effectiveness, including assessment, research, planning and budgeting, and accreditation and how they all relate to each other.

ADMN 5323 Internship: 3 semester hours.

This course allows students to engage in meaningful field experiences that directly relate to their career interests. Students will select an internship site that provides opportunities to expand their depth and breadth of knowledge and experience in their chosen concentration. A total of 150 contact hours is required for successful completion of internship.

ADMN 5324 Legal Issues in Higher Education: 3 semester hours.

This course will be an exploration of the legal issues that affect the administration of postsecondary educational institutions. Emphasis will be on the legal environment of postsecondary institutions, legal processes, analysis, and problems incurred in the leadership and administration of colleges and universities.

ADMN 5325 Strategic Enrollment Management (SEM): 3 semester hours.

This course is designed to provide students with a comprehensive view of the history, roles, scopes, and responsibilities of the enrollment management function of an institution. Further, this course provides a template for creating an effective and exemplary enrollment management function. In addition, the course provides blueprint for critiquing and evaluating enrollment management plans and activities.

ADMN 5326 Theories, Foundations, and Functions in Student Affairs: 3 semester hours.

This course is designed as a comprehensive and in-depth exploration of the psychosocial development of today's college student. Students will learn about various student development theories and how those theories apply to the contemporary college student. Also, the course focuses on factors that influence today's college student's choice of career, political interests, values, and ethics. In addition, the course explores the various functions within a division of student affairs and how those functions contribute to the mission of the institution.

ADMN 5327 Research, Evaluation, and Data Analysis in Schools: 3 semester hours.

General orientation research course for master's degree candidates in administration. The course considers the nature of research problems, evaluations, 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.

ADMN 5350 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 5316 or ADMN 5163) or (CNSL 5316 or CNSL 5163) and (ADMN 5309 or ADMN 5093) or (CNSL 5309 or CNSL 5093) and (CNSL 5153 or CNSL 5315) and (ADMN 5300 or ADMN 5003) and (ADMN 5023 or ADMN 5302) and (ADMN 5033 or ADMN 5303) and (ADMN 5304 or ADMN 5043) and (ADMN 5307 or ADMN 5073) and (ADMN 5308 or ADMN 5083) and (ADMN 5301 or ADMN 5013) and (SUPV 5311 or SUPV 5113) and (ADMN 5353 or ADMN 5533) and (ADMN 5305 or ADMN 5053) and (ADMN 5103 or ADMN 5310) and (ADMN 5317 or ADMN 5173).

ADMN 5353 Data Driven Decision Making for Leaders: 3 semester hours.

This course also examines the role of data in making effective instructional, financial, and administrative decisions in educational organizations. This is a significant issue in Educational Administration; specifically, in today's standards-based testing environment in K-16 education. This course will cover concepts, theories, models and foundations of data driven decisions making, along with understanding basic applications, and basic statistical concepts for educational organizations.

ADMN 5399 Independent Study: 1-3 semester hour.

Readings, research, and/or field work on selected topics. Prerequisite: consent of advisor.

Educational Leadership (EDUL)

Courses

EDUL 7300 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 7301 Strategic Planning in Educational Leadership: 3 semester hours.

Focuses on the process of strategic planning in educational leadership and how external environments and internal dynamics affect planning procedures.

EDUL 7304 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 7305 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 7307 Special Topics: 3 semester hours.

An examination of special topics related to educational leadership. This course may be repeated when topics vary.

Prerequisites: EDUL 7360 or EDUL 7603.

EDUL 7308 Internship I Observation and Field Experience: 3 semester hours.

Field based experience designed to provide educational leaders with the opportunity to observe in varied social agencies.

EDUL 7309 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 7310 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 7314 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 7317 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 7321 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 7322 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 7324 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 7325 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 7326 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 7328 School Curriculum Leadership: 3 semester hours.

Examines the role of educational leadership 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 7330 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 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 7336 Advanced Qualitative and Quantitative Research: 3 semester hours.

Overview of doctoral level advanced quantitative and qualitative research methods in education.

Prerequisites: EDUL 7360 or EDUL 7603 and (EDUL 7361 or EDUL 7613).

EDUL 7350 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 7352 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 7360 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 7361 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 7363 Educational Statistics: 3 semester hours.

An explanation of quantitative designs including descriptive and inferential statistical procedures: to include multivariate and non-parametric techniques.

EDUL 7370 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 7371 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 7372 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 7374 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 7375 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 7376 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 7377 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 7399 Independent Study: 1-3 semester hour.

Readings, research and/or field work on selected topics.

EDUL 8300 Dissertation: 1-3 semester hour.

Studies, program procedures, and dissertation issues. May be repeated.

EDUL 8301 Dissertation Seminar: 3 semester hours.

This course will help students design and complete the dissertation including data collection, analysis, written report, and oral defense.

EDUL 8600 EDUL Dissertation: 6 semester hours.

Studies, program procedures, and dissertation issues. May be repeated.

Electrical Engineering (ELEG)

Courses

ELEG 1101 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.

Co-requisite: GNEG 1010.

ELEG 1102 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 1301 Programming for Computer Engineering I: 3 semester hours.

Fundamentals of C++ programming language. Logic of algorithms, flowcharts, program looping, conditional statements, arrays, strings, preprocessor, inputs, outputs, functions and pointers, applications and projects for Computer Engineering majors.

Prerequisites: MATH 1113 or MATH 1314 or COMP 1300 or COMP 1003.

Co-requisite: MATH 1314.

ELEG 1304 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 1314 (may be taken concurrently) or MATH 1113 (may be taken concurrently)) or (MATH 1511 (may be taken concurrently) or MATH 1115 (may be taken concurrently)) or (MATH 1316 (may be taken concurrently) or MATH 1123 (may be taken concurrently)) or (MATH 2413 (may be taken concurrently) or MATH 1124 (may be taken concurrently)) or (MATH 2414 (may be taken concurrently) or MATH 2024 (may be taken concurrently)).

ELEG 1321 Programming for Computer Engineering II: 3 semester hours.

Development of advanced programming skills through review of programming concepts, and knowledge of recursion, structures, including array of structures, algorithms, object-oriented programming concepts including classes, inheritance. Coding applications and projects for Computer Engineering majors.

Prerequisites: ELEG 1301.

ELEG 2101 Electric Circuits Laboratory: 1 semester hour.

Operation of basic laboratory-type test and measurement equipment. Experimentation in basic current-voltage relations, circuit laws and network analysis of linear DC and AC circuits. Use of oscilloscope in circuit analysis. RL, RC, RLC, resonance, Op-Amp circuits, and transient circuit experiments, Statistical analysis of elements of Electrical Circuits.

Prerequisites: ELEG 2305 (may be taken concurrently) or ELEG 2023 (may be taken concurrently).

ELEG 2131 Logic Circuits Lab: 1 semester hour.

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. Field Programmable Gate Array (FPGA) Devices and Verilog programming language.

Co-requisite: ELEG 2311.

ELEG 2305 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 2326 or PHYS 2523) and (MATH 2320 (may be taken concurrently) or MATH 2043 (may be taken concurrently)).

Co-requisite: ELEG 2101.

ELEG 2311 Logic Circuits: 3 semester hours.

Introduction to digital systems, number systems and codes. Boolean algebra and logic gates; gate-level minimization; combinational logic; synchronous sequential logic; parallelism with Field Programmable Gate Array (FPGA) and Hardware Description Languages (DHL), such as Verilog, VHDL, or system Verilog.

Co-requisites: ELEG 2131, ELEG 2305.

ELEG 2315 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 2320 (may be taken concurrently) or MATH 2043 (may be taken concurrently)) and (PHYS 2326 or PHYS 2523).

ELEG 2321 Data Structure and Algorithm with Python: 3 semester hours.

Python data structure and advanced algorithm design and development. Fundamentals of Python programming, introduction on Linux system, list and sorting, sets and maps, tree, graph and heaps, engineering applications and team projects.

Prerequisites: ELEG 1301 or ELEG 1043 or ELEG 1304 and (MATH 1124 or MATH 2413).

ELEG 2331 Advanced Programming and Applications: 3 semester hours.

Advanced software development with a focus on problem solving skills. Design, implementation, and testing of several large programs in a Linux environment using current technologies. Logic of algorithms, program looping, selection statements, functions, file inputs and outputs, functions and object-oriented programming, engineering applications and projects.

Prerequisites: ELEG 1301.

ELEG 3104 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 or ELEG 3303 and (ELEG 2011 or ELEG 2101).

ELEG 3107 Microprocessor Systems Design Laboratory: 1 semester hour.

Use of development tools in the design and implementation of microprocessor / microcontroller based systems. Assembly language programming, parallel I/O communication interfacing, interrupts, and timers.

Prerequisites: ((ELEG 2311 or ELEG 3063) and (ELEG 1304 or ELEG 1043)) or ((COMP 1336 or COMP 1213) and (ELEG 3307 (may be taken concurrently) or ELEG 3073 (may be taken concurrently))).

ELEG 3301 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 2305 or ELEG 2023.

ELEG 3302 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 3301 or ELEG 3013.

ELEG 3303 Physical Principles of Solid State Devices: 3 semester hours.

Crystal structure, introduction to quantum concepts and discrete energy levels; atomic bonding, solid-state band theory, Fermi-Dirac statistics, charge carrier transport, and introduction to semiconductor device physics and operation.

Prerequisites: ((CHEM 1403 or CHEM 1034) or (CHEM 1043 or CHEM 1304)) and (MATH 2320 or MATH 2043) and (PHYS 2326 or PHYS 2523).

ELEG 3304 Electronics I: 3 semester hours.

Operational amplifiers. Diodes and nonlinear circuits. Field effect transistors. Analysis and design of linear amplifiers. Biasing, small and large signal behavior. Operation of bipolar junction transistors.

Prerequisites: (ELEG 3303 (may be taken concurrently) or ELEG 3033 (may be taken concurrently)) and (ELEG 3301 or ELEG 3013).

ELEG 3307 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 2311 or ELEG 3063) and ((ELEG 1304 or ELEG 1043) or (COMP 1213 or COMP 1336)).

Co-requisite: ELEG 3107.

ELEG 3615 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 4100 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 4300 (may be taken concurrently) or ELEG 4003.

ELEG 4101 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 2101 or ELEG 2011) and (ELEG 3304 (may be taken concurrently) or ELEG 3043 (may be taken concurrently)).

ELEG 4102 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 4301 (may be taken concurrently) or ELEG 4013 (may be taken concurrently).

ELEG 4131 Advanced Logic Design Laboratory: 1 semester hour.

Design and laboratory implementation of digital systems using standard, integrated circuits.

Prerequisites: ELEG 4335 (may be taken concurrently) or ELEG 4355 (may be taken concurrently).

ELEG 4132 Computer Networking Lab: 1 semester hour.

The courses will introduce various types of network devices, configurations, network scenarios, cables, Cisco Packet tracer and CLI commands.

Prerequisites: ELEG 3307 (may be taken concurrently) or ELEG 3073.

ELEG 4247 Senior Design and Professionalism I: 2 semester hours.

This is the first course of a two-semester capstone experience (ELEG 4248 must immediately follow ELEG 4247 or sequence must restart with 4247) 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 2308 or CHEG 2003 and (ELEG 3307 or ELEG 3073) and (ELEG 3304 or ELEG 3043).

ELEG 4248 Senior Design and Professionalism II: 2 semester hours.

A continuation of ELEG 4247 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 4247 or ELEG 4247.

ELEG 4300 Communication Theory: 3 semester hours.

Signals and spectra. Transmission and processing of signals. continuous-wave modulation and pulse modulation. Baseband pulse transmission and pass-band digital transmission. Signal space analysis. Information measures.

Prerequisites: (ELEG 3302 or ELEG 3023) and (MATH 3302 or MATH 3023).

ELEG 4301 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 3301 or ELEG 3013) and (MATH 4317 or MATH 4173).

ELEG 4302 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 or ELEG 4301.

ELEG 4304 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 3304 or ELEG 3043.

ELEG 4305 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 2305 or ELEG 2023) and (MATH 4317 or MATH 4173).

ELEG 4307 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 or ELEG 3302 and (MATH 4173 or MATH 4317).

ELEG 4310 Special Topics: 3 semester hours.

Selected current and emerging topics in Electrical Engineering. Courses may be repeated for credit when topics vary.

ELEG 4313 Broadband Communication Systems I: 3 semester hours.

Introduction of various areas of high-speed communication systems. The basic ideas of DSL technology. Telephone subscriber loop environment. Twisted-Pair channel modeling. Transceiver front-end noise models. Channel capacity testing and analysis techniques of xDSL systems. Students will be expected to research and present various topics of interests in class. Projects are expected from the students at the end of the semester. Other special topics of interest will be covered especially as they relate to xDSL issues.

Prerequisites: ELEG 3023 or ELEG 3302.

ELEG 4322 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 or ELEG 3303.

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 4324 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 or ELEG 3304 and (ELEG 4013 or ELEG 4301).

ELEG 4325 Computer Interfacing and Communications: 3 semester hours.

Introduce software design and hardware interfacing of embedded systems, microcontroller based parallel and serial communications, I/O programming, low power computing, data acquisition and communication, emphasis on student projects.

Prerequisites: (ELEG 3107 or ELEG 3071) and (ELEG 3307 or ELEG 3073).

ELEG 4326 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 or ELEG 3304 (may be taken concurrently) and (ELEG 3063 or ELEG 2311 (may be taken concurrently)) and (ELEG 4043 or ELEG 4304 (may be taken concurrently)).

ELEG 4330 Introduction to Digital Design: 3 semester hours.

The use of hardware description language and automated synthesis in design. hierarchical and modular design of digital systems. Control logic, synchronous and asynchronous sequential circuit design. Programmable logic devices and field programmable gate arrays. Circuit simulation for design verification and analysis. Timing-oriented design.

Prerequisites: (ELEG 2311 or ELEG 3063) and (ELEG 3307 or ELEG 3073).

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 or ELEG 4330.

ELEG 4335 Advanced Logic Design: 3 semester hours.

Introduction to the design, modeling and verification of complex digital system, modem design, methodologies for logic design, development of tools for the design and testing of digital systems.

Prerequisites: ELEG 3073 or ELEG 3307.

Co-requisite: ELEG 4131.

ELEG 4336 Introduction to High Performance Computing: 3 semester hours.

The course will introduce high performance computing hardware architecture, software tools, and applications.

Prerequisites: ELEG 3307 or ELEG 3073.

ELEG 4339 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, VLSI design project.

Prerequisites: ELEG 3063 or ELEG 2311.

ELEG 4361 Design of Digital System Applications Using Field Programmable Gate Array Devices: 3 semester hours.

Three credit hours; This course provides instruction and application into the use of Hardware Descriptive Language in program development using gate level modelling, data flow modelling, behavioral modelling, top down and bottom up design using combinational logic and state machine design; software simulation and design implementation and testing using FPGAs.

Prerequisites: ELEG 3063 or ELEG 2311.

ELEG 4371 Foundation and Application of Internet of Things: 3 semester hours.

The course will give a systematic introduction to IoT technology, and the popular hardware platform such as Raspberry Pi together with some sensor kits will be adopted. It will cover the basic concepts and fundamental principles of IoT, including (i) IoT devices/things and its design, (ii) Embedded sensing and processing, (iii) Low power IoT networking and communication, and (iv) Computing and Data Analytics. A project-based teaching and learning approach will be adopted.

Prerequisites: ELEG 2331.

ELEG 4372 Computer and Network Security: 3 semester hours.

This course introduces students to the basic network Cybersecurity Principles Overview of Computer Security; Computer Networks and Internet Overview; IT System Components Network Technology and Protocols; Network Defense; Network TCP/IP Stack and Attacks; Attacks on Industrial Control Systems; Firewall, and Intrusion Detection and Prevention System; Key Distribution and User Authentication Transport-Level Security; IP Security; Short Introduction to cryptography

Prerequisites: ELEG 3023 or ELEG 3302.

ELEG 4373 Cyber Physical Systems: 3 semester hours.

Students gain an understanding across the breadth of cybersecurity including system monitoring, networking basics and penetration testing. An applied approach to statistics is also included to prepare students to assess the data collected for their research projects. The course is conducted with a hands-on approach applying virtual environments to practice the concepts learned in the technical lectures each week.

Prerequisites: ELEG 3023 or ELEG 3302.

ELEG 4374 Introduction to Cryptography: 3 semester hours.

This course provides an introduction to modern cryptography and communication security. It focuses on how cryptographic algorithms and protocols work and how to use them. The course covers the concepts of block ciphers and message authentication codes, public key encryption, digital signatures, and key establishment, as well as common examples and uses of such schemes, including the AES, RSA-OAEP, and the Digital Signature Algorithm. Basic cryptanalytic techniques and examples of practical security solutions are explored to understand how to design and evaluate modern security solutions.

Prerequisites: ELEG 3023 or ELEG 3302.

ELEG 4377 Machine Learning for Engineering Applications: 3 semester hours.

Machine Learning for Engineering Applications. Credit 3 semester hours. Fundamentals of machine learning model and its design and implementation. Data preprocessing, feature engineering, various classifiers and regression, clustering, engineering applications and team projects.

Prerequisites: ELEG 2331.

ELEG 4378 Mobile Edge Computing: 3 semester hours.

The course will provide a systematic introduction to mobile edge computing. It will cover the architecture of mobile edge computing with its entities and protocols, from the edge devices via middle layers up to the cloud. It will also cover the computing and communication technologies used in mobile edge computing, as well as their performance, power efficiency, storage, and communication bandwidth constraints. The edge data analytics and the security and privacy issues of mobile edge computing will also be discussed.

Prerequisites: ELEG 2331.

ELEG 4399 Independent Study: 1-3 semester hour.

Readings, research, and/or field work on selected topics.

ELEG 4615 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 5391 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 5396 Electrical Engineering Research: 3 semester hours.

Methods and practice of Electrical Engineering research performed under the supervision of graduate advisor.

ELEG 5696 Research: 6 semester hours.

Engineering research under the supervision of graduate advisor.

ELEG 5699 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 6101 Graduate Seminar I: 1 semester hour.

Seminar on emerging areas of electrical engineering. Research presentations by faculty, students and invited guests.

ELEG 6102 Graduate Seminar II: 1 semester hour.

Continuation of ELEG 6011.

ELEG 6310 Advanced Computer Systems Design: 3 semester hours.

Digital Design Methodologies, System Design CAD tools, Hardware Description Language, Simulation, Verification and Synthesis.

Prerequisites: ELEG 4303 or ELEG 4330.

ELEG 6311 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 4330 or ELEG 4303.

ELEG 6312 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.

ELEG 6314 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 4339.

ELEG 6315 Information Networks: 3 semester hours.

OSI Reference model overview, concept of peer-to-peer operation, and layer functions. Circuit switched networks, packet switched networks, ATM and FR networks. Access networks: LANs, DSL, T1/E1, and wireless. Enterprise and core networks: Protocol architectures such as TCP, UDP, IP, ATM, VPN, and MPLS. Interconnecting the networks for end-to-end operation for connectionless and connection oriented protocols. Modeling and performance analysis of network protocols. Signaling and network management overview.

ELEG 6316 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 6318 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 probabilistic 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 6320 Wireless Networks: 3 semester hours.

Overview of mobile and cellular networks, I, II, III and IV generation systems. Mobile computing systems, and architecture and design of digital cellular wireless networks. Design of IEEE 802 Wireless LANs and standards. Performance considerations for user and node mobility management. Power and propagation, dynamic routing and re-configurable networks. Mobile transport protocols including IP, ATM, and TCP. Middleware considerations. Mobile applications, management and service provisioning.

ELEG 6321 Digital Communication: 3 semester hours.

Overview of Digital Communications fundamentals of AM, FM and PM. Concept of Nyquist criteria, SNR, Wave shaping, Shannon's theory. Digital waveform coding methods. Channel impairments: random noise, cross talk, inter-modulation, information recovery process. Design of modems and SNR improvements by noise shaping and canceling techniques. Integrated Services Digital Networks: Channelization, clock recovery, framing and recovery of information, end-to-end connectivity methods, signaling and management operations.

ELEG 6322 Coding Theory: 3 semester hours.

Linear codes: parity and generator matrices, syndrome error correction and detection capability, minimum distance. Performance bounds of linear codes, Hamming and Golay codes, Galois fields, shift-register implementation. Cyclic codes. BCH codes: the BCH decoding algorithm, burst-correction codes.

Prerequisites: ELEG 4300 and ELEG 6331.

ELEG 6324 Advanced Broadband Communications Systems: 3 semester hours.

Overview: Definition of Broadband, broadband architectures: DSL, DSLAM and variations, Digital wireless, and introduction to packet and circuit switching technologies. Standards of DSL. Design of HDSL, ADSL, XDSL systems and methods to improve bandwidth enhancements on TTP. Design of high-speed operation: Impact on existing TIP (Cat3, 5), digital wireless, CATV and satellite network architectures. Modeling and Performance analysis of different broadband systems for data and multi-service environment. Transmission impairments and information recovery process: noise shaping, signal shaping, and Impact of cross-talk, inter-modulation in the physical medium.

Prerequisites: ELEG 4313.

ELEG 6325 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 6331.

ELEG 6326 Cybersecurity Fundamentals and Principles: 3 semester hours.

Fundamental concepts and challenges that define cybersecurity such as identity and access management, risk management, software development security, network security, operation security, etc.

Prerequisites: ELEG 4300 (may be taken concurrently) or ELEG 4003 or ELEG 4325 (may be taken concurrently) or ELEG 4253.

ELEG 6327 Penetration Testing and Ethical Hacking: 3 semester hours.

The course explores the steps involved in penetrations testing such as reconnaissance, footprinting and social engineering, vulnerability scanning and enumeration, operating system weakness, and the methods used to hack web servers and wireless networks.

Prerequisites: ELEG 4300 (may be taken concurrently) or ELEG 4003 or ELEG 4325 (may be taken concurrently) or ELEG 4253.

ELEG 6328 Cloud Application Security: 3 semester hours.

This course provides a comprehensive understanding of the principles, best practices, and tools needed to safeguard cloud applications and the sensitive data they handle.

Prerequisites: ELEG 4300 (may be taken concurrently) or ELEG 4003 or ELEG 4325 (may be taken concurrently) or ELEG 4253.

ELEG 6329 Hardware Security: 3 semester hours.

Hardware security topics to be covered include; security primitives, security methods, emerging technologies and security trends, vulnerability in the electronic component supply chain and in the design and fabrication processes.

Prerequisites: ELEG 2311 or ELEG 3063.

ELEG 6330 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 6331 Stochastic Processes: 3 semester hours.

Probability overview, distribution and density functions, moments, time averaging and sampled averaging. Stochastic processes: Gaussian, Markov process, Poisson, Rice, Wiener-Levy processes, bi-model and tri-model processes. Modeling of systems using stochastic processes and system analysis. Karhunen-Loeve transform, bounds and their use in systems. Decision Rules: Maximum likelihood, Minimum Error, Kalman and Wiener filters, Linear and non-linear estimation and Optimization techniques.

Prerequisites: MATH 3302 or MATH 3023.

ELEG 6333 Wavelets and Their Applications: 3 semester hours.

Time-frequency analysis. Continuous, discrete, and discrete-time wavelet transform. Multi-rate filter banks. Multi-band wavelets, two-dimensional wavelets. Wavelet packets and matching pursuit. Wavelets in noise filtering, compression, modeling of fractals, communications, detection, adaptive systems, neural networks, and fast computation.

Prerequisites: ELEG 4003 or ELEG 4300.

ELEG 6341 Advanced Field Programmable Gate Array Design and Applications: 3 semester hours.

This course introduces Field Programmable Gate Array (FPGA) based synthesis and design with a focus on signal processing implementations. It covers FPGA designs of digital filters, Fourier transform, JPEG decoding, adaptive signal processing. In addition, circuit design techniques commonly used in signal processing will also be introduced.

Prerequisites: ELEG 4300 or ELEG 4003.

ELEG 6342 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.

ELEG 6350 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.

ELEG 6351 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.

ELEG 6352 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.

ELEG 6354 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.

ELEG 6360 Modern Artificial Intelligence: 3 semester hours.

This course focuses on fundamental principles and techniques of modern Artificial Intelligence (AI). It will cover the underlying theory, and the range of applications to which AI has been applied. Specifically, search and game playing, graphical models, Markov Decision Processes, and reinforcement learning. The course will also train students to use open-source AI software to gain hands-on experiences.

ELEG 6361 Advanced Artificial Intelligence: 3 semester hours.

This course will cover advanced topics and applications in AI such as sentiment analysis, machine translation, knowledge graph, and face recognition. Furthermore, this course will introduce complicated AI systems such as Question Answer System and Object Tracking System. The course will also train students to use open-source AI software to gain hands-on experiences.

Prerequisites: ELEG 6603 or ELEG 6360.

ELEG 6362 Generative AI and Foundations Models: 3 semester hours.

This course will introduce, discuss, and analyze the core concepts and methodologies of generative AI and foundation models. Specifically, the course will provide thorough understanding of the fundamental concepts, techniques, and algorithms used to create generative AI systems such as transformers and attention mechanisms in deep learning. Students will learn generative AI tools and platforms as well as training and optimizing foundation models through hands-on experiences.

ELEG 6365 Intro to High Perf Computing: 3 semester hours.

Three credit hour lecture for graduate students. The course will introduce high performance computing hardware architecture and software tools. It will provide an opportunity for students to build and execute sample parallel codes for scientific research.

ELEG 6370 Selected Topics in Deep Learning: 3 semester hours.

This course will cover advanced topics in deep learning, such as Deep Transfer Learning, Generative Adversarial Nets, Deep Reinforcement Learning, and Adversarial Machine Learning. In addition, it will cover important use cases of various deep learning models. The course will also train students programming skills with Python and open-source deep learning software such as TensorFlow to gain hands-on experiences.

Prerequisites: ELEG 6183 or ELEG 6318.

ELEG 6371 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 6372 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 6373 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 6374 Power Gen Oper Control: 3 semester hours.

Engineering aspects of power system operation. Economic analysis of generation plants and scheduling to minimize total cost of operation. Scheduling of hydro resources and thermal plants with limited fuel supplies. Loss analysis, secure operation. Power System Modeling. Power System organizations.

ELEG 6375 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 6376 Power Electronics Power System: 3 semester hours.

Impact of power electronics loads on power quality. Passive and active filters. Active input current wave shaping. HVDC transmission. Static VAR control, energy storage systems. Interconnecting photovoltaic and wind generators. Static phase shifters and circuit breakers for flexible AC transmission.

ELEG 6377 Advanced Electric Drives: 3 semester hours.

D-q axis analysis of salient-pole synchronous motor drives. Vector-controlled induction motor drives, sensor-less drives, voltage space-vector modulation techniques, current-source inverter drives, reluctance drives. Power quality issues. Integrated software lab.

ELEG 6378 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 6380 Introduction to Bioinformatics: 3 semester hours.

This course introduces Bioinformatics and provides a wide range of both fundamental and practical topics, focusing on application of computational and engineering skills in biology and medicine, including: brief introduction to biology and genomics, engineering statistics, data science, and bioinformatics. The course will require students to participate in a research project related to bioinformatics.

ELEG 6381 Advanced Bioinformatics: 3 semester hours.

This course teaches advanced topics in Bioinformatics including analysis of large scale genomic data and associated annotation data. In addition, strong emphasis is given to the interpretation and presentation of analytic outcomes. Research project analyzing large scale genomic data is required to complete the course.

Prerequisites: ELEG 6380.

ELEG 6382 Computational Systems Biology: 3 semester hours.

Computational Systems Biology is an emerging field of research which requires multidisciplinary training in engineering and biology. This course introduces the students into the realm of physics conceptualization of biological system and teach them how to develop and use mathematical models and computer simulation to understand the network design rules.

Prerequisites: ELEG 6380.

ELEG 6383 Computational Modeling of Biological Systems: 3 semester hours.

This course introduces the emerging field of systems biology and promotes application of Electrical and Computer Engineering methodology in biomedical fields. It covers many aspects of biomathematical modeling, including: the choice of a modeling framework; the design of interaction diagrams; the identification of variables and processes; standard methods of parameter estimation; the analysis of steady states, stability, and sensitivity; and the simulation of representative biomedical scenarios.

Prerequisites: ELEG 6380.

ELEG 6385 Fundamentals of Power Electronics and Motor Drives: 3 semester hours.

Power Electronics and Motor Drive: Control of electrical energy using solid state devices, diodes, thyristors, and triacs; Chopper Circuits, mathematical analysis of circuits containing these devices; power converters and control; solid-state drives for motor control.

ELEG 6386 Renewable Energy Sources: 3 semester hours.

Solar thermal energy and photovoltaics; bioenergy, hydroelectricity, tidal power, wind, wave and geothermal energies; integration of renewable energy systems.

ELEG 6387 Smart Grid: Fundamentals of Design and Analysis: 3 semester hours.

Evolution of the electric power grid; basics of electric power systems; transmission networks; solar and wind power generation; integration of variable energy resources; impact of distributed generation and electric vehicles, macro and micro grids; and data communications standards for the grid.

ELEG 6391 Special Topics in Elec Engr: 3 semester hours.

Special topics in electrical engineering relating electrical energy, digital systems, communications, sign processing, and nanoelectronics are selected and discussed in detail. May be repeated for credit if topics vary.

ELEG 7310 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 7601 Doctoral Research I: 6 semester hours.

Research for thesis or dissertation. Limited to doctoral students. May be repeated for credit.

ELEG 7602 Doctoral Research II: 6 semester hours.

Continuation of ELEG 7601. Limited to doctoral students. May be repeated for credit.

ELEG 7691 Doctoral Dissertation I: 6 semester hours.

The continuation of ELEG 7601 and ELEG 7602 for writing thesis. Limited to students who have been admitted to candidacy for doctoral degree. A written dissertation proposal is required to be presented, defended orally, and approved by the faculty advisory committee.

ELEG 7692 Doctoral Dissertation II: 6 semester hours.

The continuation of ELEG 7691. Limited to students who have been admitted to candidacy for doctoral degree. A written dissertation is required to be presented, defended orally, and approved by the faculty advisory committee.

Electrical Engineering Tech (ELET)

Courses

ELET 1112 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 1314 or MATH 1113 or MATH 1115 or MATH 1511.

ELET 1312 DC/AC Circuits: 0 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 1511 or MATH 1115.

ELET 2122 Basic Electronics I Laboratory: 1 semester hour.

The implementation of semiconductors in electronic circuits and the analysis of basic amplifiers.

Prerequisites: (MATH 1314 or MATH 1113 or MATH 1511 or MATH 1115) and (ELET 1112 or ELET 1121) and (ELET 1312 or ELET 1123) and (ELET 2322 or ELET 2223).

ELET 2134 Circuits Analysis Laboratory: 1 semester hour.

Laboratory experiments in circuit analysis, controlled sources, transient and sinusoidal solutions.

Prerequisites: ELET 1112 or ELET 1121 and (ELET 1312 or ELET 1123) and (MATH 2413 or MATH 1124).

ELET 2322 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 1314 or MATH 1511 or MATH 1113 or MATH 1115) and (ELET 1112 or ELET 1121) and (ELET 1312 or ELET 1123) and ELET 2122 (may be taken concurrently).

ELET 2334 Circuit Analysis: 3 semester hours.

Study of circuit analysis techniques, transient and sinusoidal responses. Applications of transform methods for circuit analysis.

Prerequisites: ELET 1112 or ELET 1121 and (ELET 1312 or ELET 1123) and (MATH 2413 or MATH 1124).

ELET 3115 Electronics II Laboratory: 1 semester hour.

Implementation and measures on field effect transistors as amplifiers, filters, oscillators and voltage regulators.

Prerequisites: ELET 2122 or ELET 2221 and (ELET 2322 or ELET 2223) and (PHYS 1302 or PHYS 2123) and ELET 3315 (may be taken concurrently).

ELET 3152 Instrumentation, Robotics and Controls Lab: 1 semester hour.

The theory and applications of electrical 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 2122 or ELET 2221 and (ELET 2223 or ELET 2322) and (PHYS 1302 or PHYS 2123) and ELET 3352 (may be taken concurrently).

ELET 3191 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 2122 and ELET 2322 and ELET 3391.

ELET 3300 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 2414 or MATH 2024 and (ELET 2122 or ELET 2221) and (ELET 2322 or ELET 2223).

ELET 3315 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 or ELET 2122 and (ELET 2322 or ELET 2223) and (PHYS 1302 or PHYS 2123) and ELET 3115 (may be taken concurrently).

ELET 3352 Instrumentation, Robotics and Controls: 3 semester hours.

The theory and applications of electrical 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 2122 or ELET 2221 and (ELET 2322 or ELET 2223) and (PHYS 2123 or PHYS 1302) and ELET 3152 (may be taken concurrently).

ELET 3391 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 2122 or ELET 2221 and ELET 2322 or ELET 2223 and ELET 3191 (may be taken concurrently).

ELET 4162 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 3191 or ELET 3911 and (ELET 3391 or ELET 3913).

Co-requisite: ELET 4362.

ELET 4208 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 4351 Advanced Integrated Circuits: 3 semester hours.

Fabrication of LSI and VLSI 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 2122 or ELET 2221 and (ELET 2322 or ELET 2223).

ELET 4362 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 3191 or ELET 3911 and (ELET 3391 or ELET 3913).

Co-requisite: ELET 4162.

ELET 4399 Independent Study: 1-3 semester hour.

Reading, research, and/or laboratory work on selected topics in Electrical Engineering Technology.

English (ENGL)

Courses

ENGL 0010 Writing Basics Lab I: 0 semester hours.

This is a basic writing course designed to focus on the basic elements of composition writing to include the writing process, writing mechanics, sentence structure, and paragraph writing. There is a strong emphasis on identifying correct sentence structure and mechanics in written material and drafting topic sentences that introduce unified, coherent paragraphs. Classroom instruction is enhanced by required lab-based activities.

ENGL 0021 Non-course Based Option I - Integrated Reading and Writing: 0 semester hours.

This non-course based option is designed to provide individualized integrated reading and writing instructions to students who did not successfully complete ENGL 0313-Integrated Reading and Writing II.

Prerequisites: ENGL 0313 or ENGL 0133.

ENGL 0030 Comp Writing Skills: 0 semester hours.

This course will enhance reading and writing skills with a major focus on the essay format. It will facilitate the student's writing proficiency with an emphasis on development of paragraphs, themes, and reports as needed for college level reading and writing

Co-requisite: ENGL 1301.

ENGL 0111 Integrated Reading & Writing Review Skills: 1 semester hour.

This course will enhance the student's performance in Freshman Composition I. The learner will improve skills in critical thinking, grammar and mechanics, and sentence and paragraph writing. Students will also be introduced to and develop a basic understanding of rhetorical analysis and essay writing necessary for successful completion of Freshman Composition I. This course is a corequisite course for students who have not passed the Reading and/or English sections of the TSI and must be taken concurrently with Freshman Composition I.

Co-requisite: ENGL 1301.

ENGL 0311 Integrated Reading and Writing Review Skills: 1 semester hour.

This is an intermediate level reading and writing course designed to improve students ability to develop paragraphs, essays, and short themes.

ENGL 0313 Integrated Reading and Writing II: 3 semester hours.

This is an advanced reading and writing course designed to prepare students for Freshman Composition I. Topics include basic reading and advanced critical writing skills. Students will be expected to write compositions similar to those assigned in Freshman Composition I. Emphasis on use of enhanced editing skills, writing multi-paragraph essays, paraphrasing paragraphs and longer passages.

Prerequisites: (TSI DIAG MainIdea with a score of 04 and TSI DIAG AuthorLang with a score of 04 and TSI DIAG SentStruc with a score of 05 and TSI DIAG Agree with a score of 05) or ENGL 0311 or (TSI DIAG MainIdea with a score of 04 and TSI DIAG AuthorLang with a score of 04) or (TSI DIAG SentStruc with a score of 05 and TSI DIAG Agree with a score of 05).

ENGL 1301 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 1302 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 1301 or ENGL 1123.

ENGL 2307 Introduction to Creative Writing: 3 semester hours.

Introductory course in three fundamental creative forms: poetry, fiction, and creative nonfiction.

Prerequisites: ENGL 1302 or ENGL 1133.

ENGL 2311 Technical and Business 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 1301 or ENGL 1123.

ENGL 2314 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 1302 or ENGL 1133.

ENGL 2322 British Literature I: 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 1302 or ENGL 1133.

ENGL 2323 British Literature II: 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 1302 or ENGL 1133.

ENGL 2324 Introduction to African Literature: 3 semester hours.

Critical examination of the development of African literature, emphasizing historical and cultural contexts, and literary analysis.

Prerequisites: ENGL 1302 or ENGL 1133 or ENGL 1143 or ENGL 2311.

ENGL 2325 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 1301 or ENGL 1123 and (ENGL 1302 or ENGL 1133).

ENGL 2327 American Literature I: 3 semester hours.

Critical examination of the colonial period to 1865, including poetry, prose, and drama in their historical and cultural contexts.

Prerequisites: (ENGL 1302 or ENGL 1133) or (ENGL 2311 or ENGL 1143).

ENGL 2328 American Literature II: 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 1302 or ENGL 1133 or ENGL 1143 or ENGL 2311.

ENGL 2330 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 1301 or ENGL 1123.

ENGL 2331 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 1301 or ENGL 1123.

ENGL 2334 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 1301 or ENGL 1123.

ENGL 2341 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 1301 or ENGL 1123.

ENGL 3302 Creative Writing Practices: 3 semester hours.

An intermediate course that focuses on the practices and techniques of creative writing, with special attention to the three fundamental creative forms: poetry, fiction, and nonfiction. The course also covers effective strategies for teaching creative writing and using creative writing as a pedagogical tool within other disciplines.

Prerequisites: ENGL 1302 or ENGL 1133 or ENGL 1143 or ENGL 2311.

ENGL 3304 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 2311 or ENGL 1143) or (ENGL 1302 or ENGL 1133).

ENGL 3305 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 1302 or ENGL 1133) or (ENGL 2311 or ENGL 1143).

ENGL 3306 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 1302 or ENGL 1133 or ENGL 1143 or ENGL 2311.

ENGL 3307 Writing for Legal Professions: 3 semester hours.

Application of principles of effective professional writing as well as legal research and reasoning to the production of well-structured and well-written documents related to the legal professions, including but not limited to case briefs, legal memoranda, and legal correspondence.

Prerequisites: (ENGL 1302 or ENGL 1133) or (ENGL 1143 or ENGL 2311).

ENGL 3308 Literature of the African Diaspora: 3 semester hours.

Critical examination of fiction, poetry, drama, folktales, and other literatures produced by people of African descent from around the globe, including but not limited to Europe, the Americas, the Caribbean, Asia, and the South Pacific. Texts may span the precolonial, colonial, and postcolonial periods and cover a wide range of themes related to the Black experience within global communities.

Prerequisites: ENGL 1302 or ENGL 1133 or ENGL 1143 or ENGL 2311.

ENGL 3315 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 1302 or ENGL 1133.

ENGL 3322 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 1302 or ENGL 1133.

ENGL 3324 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 1302 or ENGL 1133 or ENGL 1143 or ENGL 2311.

ENGL 3330 Fiction Writing Workshop: 3 semester hours.

A workshop course focused on the fundamentals of writing fiction, with an emphasis on short fiction. Students will study the craft of writing fiction as exemplified within contemporary examples and will produce original fiction through workshop sessions covering all stages of the writing process, including brainstorming, planning, drafting, peer review, revision, and editing.

Prerequisites: ENGL 1302 or ENGL 1133 or ENGL 1143 or ENGL 2311.

ENGL 3334 Poetry Writing Workshop: 3 semester hours.

A workshop course focused on the fundamentals of writing poetry of various forms. Students will study the craft of writing poetry as exemplified writing contemporary examples and will produce original poetry through workshop sessions covering all stages of the writing process, including brainstorming, planning, drafting, peer review, revision, and editing.

Prerequisites: ENGL 1302 or ENGL 1133 or ENGL 1143 or ENGL 2311.

ENGL 3399 Independent Study: 1-3 semester hour.

Readings, research, and /or field work on selected topics at the 3000 level.

ENGL 4300 Studies in Teaching ELAR: 3 semester hours.

Advanced course on pedagogy and best practices for teaching English Language Arts and Reading (ELAR) for grades 7-12 based on current NCTE standards.

Prerequisites: ENGL 1302 or ENGL 1133.

ENGL 4322 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 1302 or ENGL 1133) or (ENGL 2311 or ENGL 1143).

ENGL 4326 Toni Morrison: 3 semester hours.

Critical examination of the works of Toni Morrison, emphasizing a study of their historical, cultural, and literary contexts.

Prerequisites: ENGL 1302 or ENGL 1133 or ENGL 1143 or ENGL 2311.

ENGL 4343 Special Topics in English: 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 3315 or ENGL 3153 or ENGL 3305 or ENGL 3053 or ENGL 3306 or ENGL 3063 or ENGL 3243 or ENGL 3324.

ENGL 4399 Independent Study: 1-3 semester hour.

Readings, research, and/or field work on selected topics.

Entrepreneurship (ENTR)

Courses

ENTR 3301 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 1301 or MGMT 2013.

ENTR 3302 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 2301 or MGMT 2013.

ENTR 3303 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 1301 or MGMT 2013.

ENTR 3309 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 1301 or MGMT 2013.

ENTR 4304 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.

ENTR 5336 Managing Innovation: 3 semester hours.

This course focuses on how technology and innovative processes used in managing and operating businesses impact organizational efficiency and effectiveness in meeting the demands of stakeholders. Working in teams, students will study how adopting new technology helps convert innovative ideas into profitable business opportunities in the assigned industries.

ENTR 5337 Leading Innovation: 3 semester hours.

Students will study leadership, entrepreneurship, and creativity as a component of change management. Examining theoretical and practical concepts of change management will develop our students to be organizational change agents.

ENTR 5338 Funding New Ideas: 3 semester hours.

This course will expose students to traditional and non-traditional options for finding capital to fund projects. Students will explore funding strategies and identify techniques, which encourage commercialization of their ideas. Financing and developing strategies for capitalizing their final product or service.

E-Sports (ESPT)

Courses

ESPT 1301 Introduction to eSports: 3 semester hours.

This course will give students an in-depth historical overview of eSports through the introduction of the ecosystem of eSports including but not limited to potential careers, gaming events, developer titles, and leagues. Through studies, lectures, and hands on assignments, students will gain a thorough understanding of numerous of eSports-related topics.

ESPT 2301 The Business of eSports and Virtual Reality: 3 semester hours.

This course will examine the in-depth business strategies of the eSports industry designed to increase and sustain consumer demand, sales, marketing, sponsorships, economics, new media and communications strategies, and consumer research.

ESPT 3301 eSports and Virtual Reality Physical Training and Rehab: 3 semester hours.

This course provides an overview of common eSports injuries with corresponding rehabilitation strategies as well as strength and conditioning programs used to prevent injury through the lens of health and sport science. Students will learn team and individual eSports skill coaching and analysis, including relevant theories of motor learning and control and sport psychology.

Prerequisites: ESPT 1301 and ESPT 2301.

Finance (FINA)

Courses

FINA 2300 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 2313 Financial Planning from a Global Perspective: 3 semester hours.

Designed to improve students' understanding of financial services industry and how it helps create wealth for individuals and the role of financial markets and institutions, domestic and global. Among the topics covered include economic and financial theories pertaining to the market system and their applications; computation of time value of money; analysis and evaluation of investment instruments including domestic and foreign stocks and bonds, mutual funds; foreign exchange rates and risk in foreign investment; financial planning to meet future financial need; cash and credit management; tax analysis and risk management.

FINA 3310 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 2302 or ACCT 2123.

FINA 3323 Trade Floor Dynamics: 3 semester hours.

The course introduces fundamental knowledge of commodities markets trading emphasizing energy sector with hands-on learning and trading experiences using virtual trading floor. Topics covered include physical versus financial assets trading, commodities and equity trading, trading risk, hedging versus speculation using derivatives; trading activities and behavior specific to energy sector assets.

Prerequisites: FINA 3310 or FINA 3103.

FINA 3333 Investment Analysis: 3 semester hours.

Study of the fundamental concepts, tools, techniques, assets, and strategies involved in investment decisions. Topics include valuation of investment alternatives and their risk-return characteristics, and analytical techniques.

Prerequisites: FINA 3103 or FINA 3310.

FINA 3338 Financial Markets and Institutions: 3 semester hours.

Major domestic financial institutions and markets as well as the U.S. central bank and other regulatory agencies will be analyzed with an extension to international markets; topics include determination of interest rates, security valuation, mortgage markets, commercial banks and other financial institutions and their risk management activities.

Prerequisites: FINA 3310 or FINA 3103 and (ECON 2301 or ECON 2123).

FINA 3339 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 3338 or FINA 3383.

FINA 3399 Independent Study in Finance: 3 semester hours.

Supervised reading, research, and/or field work on selected topics in finance.

Prerequisites: FINA 3310 or FINA 3103.

FINA 4321 Managerial Finance: 3 semester hours.

Introduces the concepts and analytical tools required to make value-creating financial decisions; provides students with theoretical foundations and practical applications of financial decision-making for business; covers a variety of topics, including financial statements, ratio analysis, risk-return analysis, bonds and stocks valuation, the cost of capital, capital structure, dividend policy, capital budgeting, and multinational financial management.

Prerequisites: FINA 3310 or FINA 3103.

FINA 4322 Commercial Lending: 3 semester hours.

Covers and qualitative analysis and assessment of industry risk, market risk and management risk; also provides an understanding of the role of loan policy and the need to summarize the borrower's various risks into an appropriate credit risk rating; in addition, it provides guidance on loan structuring and documentation issues in response to the analysis of quantitative and qualitative risks.

Prerequisites: ECON 2113 or ECON 2302 and (ECON 2123 or ECON 2301) and (FINA 3103 or FINA 3310).

FINA 4323 Bank Management: 3 semester hours.

Covers fundamental concepts and principles in commercial bank operations and management; analysis of bank assets and liabilities, assessment of various types of risk including operating, industry and market risks and management of risk exposure. Special emphasis on loans, the most important bank asset, particularly, commercial lending.

Prerequisites: ECON 2123 or ECON 2301 and (FINA 3103 or FINA 3310).

FINA 4330 Money and Banking: 3 semester hours.

Covers key topics in the theory and practice of financial markets, and banking; focuses on interest rates and money supply; the Federal Reserve System and monetary policy, regulation of financial markets and institutions; international financial system.

Prerequisites: ECON 2301 or ECON 2123.

FINA 4331 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 4335 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 3310 or FINA 3103 and ECON 2301 or ECON 2123.

FINA 4338 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 3310 or FINA 3103.

FINA 4345 Special Topics in Finance: 3 semester hours.

Supervised fulltime training in industry, government, or other agencies for senior-level 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 2302 or ECON 2113 and (ECON 2301 or ECON 2123) and (FINA 3310 or FINA 3103).

FINA 4346 Student Managed Fund: 3 semester hours.

Focuses on security analysis and portfolio management; mixture of lectures, projects and presentations. Offers students a unique opportunity to manage portfolio in real-world setting, using Bloomberg Professional Services platform.

Prerequisites: ECON 2301 or ECON 2123 and (FINA 3310 or FINA 3103).

FINA 4350 Trading Risk Management: 3 semester hours.

Risks related to energy trading will be explored including market risk, credit risk, operational risk, exchange rate risk and portfolio risk; risk management factors, measures and techniques including value at risk (VAR), financial derivatives as hedging tools, statistical methods and hazard model with be utilized.

Prerequisites: FINA 3310 or FINA 3103.

FINA 4399 Independent Study in Finance: 1-3 semester hour.

Supervised reading, research, and/or field work on selected topics.

FINA 5300 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 5310 Theory of Financial Management: 3 semester hours.

Applications of the concepts, tools and techniques in modern financial theory to analyze corporate financial decision-making; topics include financial statements, ratio analysis, risk return trade-off, bond and stock valuation, cost of capital and capital structure, dividend policy, capital budgeting, corporate restructuring, and multinational financial management.

Prerequisites: FINA 5300 or FINA 5003.

FINA 5331 Investment Analysis and Management: 3 semester hours.

Fundamentals of securities, markets, an investments; analysis of risk and return; valuation of fixed income securities and stocks; options futures contracts; investment companies; portfolio theory and management.

Prerequisites: FINA 5300 or FINA 5003.

FINA 5333 International Finance: 3 semester hours.

Study of international financial markets and exchange rate systems; topics include exchange rates determination, international arbitrage and parity conditions, currency derivatives, country risk analysis, direct foreign investments, and international banking. Exchange rate risk measurements and management, international capital structure and cost of capital, and multinational cash and capital budgeting will also be analyzed.

Prerequisites: FINA 5003 or FINA 5300.

FINA 5338 Fin Mrkt and Inst: 3 semester hours.

Study of financial markets, domestic and international, and their interrelationship through financial institutions in determining interest rates and asset prices and the flow of funds; Federal Reserve System and its role; regulation of financial markets and institutions; risk management of important financial institutions.

Prerequisites: FINA 5300 or FINA 5003 and (ECON 5300 or ECON 5003).

FINA 5357 Case Studies in Finance: 3 semester hours.

Application and integration of financial concepts, theories and techniques to analyze and solve financial problems facing corporations using real simulated cases. Topics include valuation, capital budgeting, capital structure, dividend policy, corporate restructure, bankruptcy, and ethics.

Prerequisites: FINA 5103 or FINA 5310.

Finance for Executives (EFIN)

Courses

EFIN 5310 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 3358 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 3359 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 4357 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 1301 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 Francophone culture.

FREN 1302 Elementary French II: 3 semester hours.

Continuation of acquisition of language skills and culture introduced in Elementary French I.

Prerequisites: FREN 1301 or FREN 1031.

General Engineering (GNEG)

Courses

GNEG 1010 Engineering Professionalism and Career Development: 0 semester hours.

This course prepares students for the professional engineering world. Provides career planning tools; discusses expected behaviors and soft (power) skills essential for engineering career success. The connection between personal, professional, and financial goals and how such goals contribute to short- and long-term personal, professional, academic, and financial goals. Professional, ethical, and moral behavior and proper communication for the workplace. This course enables engineers to take full advantage of internships, co-ops, engineering jobs, and the classroom.

Co-requisite: ELEG 1101.

GNEG 1101 Introduction to Engineering, Computer Science, and Technology: 1 semester hour.

Intro to basic engineering and computer science concepts. Students will become aware of various disciplines of engineering and computer science, ethical and professional responsibilities in these fields, creativity and design. It also prepares students for professional engineering world. Provides career planning tools; discusses expected behaviors and soft skills essential for engineering career success. The connection between personal, professional, and financial goals and how such goals contribute to short- and long-term personal, professional, academic, and financial goals. Professional, ethical, and moral behavior and proper communication for the workplace. This course enables engineers to take full advantage of internships, co-ops, engineering jobs, and the classroom.

Co-requisites: ELEG 1102, MATH 1314, MATH 1316, MATH 2413.

GNEG 1112 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 2413.

GNEG 1319 Special Topics: 0-3 semester hour.

This special topics course enables students at all levels of matriculation to be exposed to interdisciplinary subject matter along the breadth of the field of engineering that is not taught in other courses in the general engineering or departmental curriculum.

GNEG 2102 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.

GNEG 2115 Engineering Research I: 0-1 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 2117 Advanced Engineering Professionalism and Career Development: 1 semester hour.

Further prepares students for the professional engineering world by providing advanced techniques and tools of success. Students learn to build higher level career skills like negotiating and reviewing offers (including benefits), how to work with others using emotional intelligence and conflict management, and hone their public speaking and presentation skills. Students also learn about various other career paths including graduate school and entrepreneurship. This course better enables them to take their careers to the next level, whatever path they choose to pursue.

Prerequisites: CHEG 1101 or CHEG 1011 or COMP 1101 or COMP 1011 or CVEG 1101 or CVEG 1011 or ELEG 1101 or ELEG 1011 or MCEG 1101 or MCEG 1011 or GNEG 1100 or GNEG 1010.

GNEG 2319 Special Topics: 0-3 semester hour.

This special topics course enables students at all levels of matriculation to be exposed to interdisciplinary subject matter along the breadth of the field of engineering that is not taught in other courses in the general engineering or departmental curriculum.

GNEG 2615 Engineering Cooperative Education I: 0-6 semester hour.

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 3106 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 2308 or CHEG 2003.

GNEG 3115 Engineering Research II: 0-1 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 or GNEG 2115.

GNEG 3319 Special Topics: 0-3 semester hour.

This special topics course enables students at all levels of matriculation to be exposed to interdisciplinary subject matter along the breadth of the field of engineering that is not taught in other courses in the general engineering or departmental curriculum.

GNEG 3615 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 4319 Special Topics: 0-3 semester hour.

This special topics course enables students at all levels of matriculation to be exposed to interdisciplinary subject matter along the breadth of the field of engineering that is not taught in other courses in the general engineering or departmental curriculum.

GNEG 4350 Cybersecurity and Public Policy: 3 semester hours.

This course examines existing and evolving cybersecurity and data protection frameworks, while exploring the complex legal, policy, and compliance challenges raised by protection efforts. Topics to be covered will include: Threats to cybersecurity, Domestic and international Internet governance, The Computer Fraud and Abuse Act, and U.S. and Texas state privacy law and personal data protection measures. Other topics may include (cyber) War, international terrorism, and U.S. surveillance law, Private information infrastructure and the law of emergencies. By the end of the course, students should have proficient understand of the rapid development of technology and security at the nexus of law, policy, compliance, and enforcement.

GNEG 4352 Advanced Fundamentals of Cybersecurity: 3 semester hours.

This course is designed to expose students to fundamentals of cybersecurity with knowledge/skills specific to (but not limited): Security assessment role in ensuring organization security, the rules of business ethics as it pertains to hacking, introduction to various tools and techniques for penetration testing, including social and ethical corporate cybersecurity responsibility.

GNEG 5189 Research: 1 semester hour.

Methods and practice in research.

GNEG 5302 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 5304 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 5306 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 5307 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 5306 or GNEG 5063.

GNEG 5313 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 5315 Data Ethics: 3 semester hours.

This course will introduce, discuss, and analyze ethical issues, algorithmic challenges, and policy decisions in data science. Specifically, the moral, social, and ethical ramifications of the choices will be explored at the different stages of the data analysis pipeline. Through class discussions, case studies and exercises, students will learn the fundamentals of ethical thinking in data science, understand the history of ethical dilemmas in scientific work, and study the distinct challenges associated with ethics in modern data science.

GNEG 5319 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 5320 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 5329 Special Topics: 1-3 semester hour.

This special topics course enables students at all levels of matriculation to be exposed to interdisciplinary subject matter along the breadth of the field of engineering that is not taught in other courses in the general engineering or departmental curriculum.

GNEG 5330 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 5389 Research: 3 semester hours.

Methods and practice in research.

GNEG 5399 Independent Study: 1-3 semester hour.

Readings, research and/or field work on selected topics.

GNEG 5608 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 5689 Research: 6 semester hours.

Methods and practice in research.

GNEG 6329 Special Topics: 1-3 semester hour.

This special topics course enables students at all levels of matriculation to be exposed to interdisciplinary subject matter along the breadth of the field of engineering that is not taught in other courses in the general engineering or departmental curriculum.

General Studies (GNST)

Courses

GNST 2301 Coding and App Development (Basics): 3 semester hours.

Introduction to general programming language (including various data types, syntax, expression, assignment, branching, looping, function, etc.) Swift programming language. Xcode platform and coding playground and basic app development for smart devices. (IOS).

Prerequisites: MATH 1123 or MATH 1316.

GNST 3302 iOS App Development: 3 semester hours.

Swift programming language, Xcode app development platform, and basic data structure and algorithm concepts, and advanced iOS app development, including GPS and map app, single view app, multiple view app, text field, table view, list view, gesture recognizer, various sensors, and app publication in App Store.

Prerequisites: GNST 2103 or GNST 2301.

GNST 3310 Multidisciplinary Seminar: 3 semester hours.

This course is designed to encourage self-analysis of career interests and planning. Students will also (a) develop their skills in critical thinking, reading, writing, and speaking; (b) synthesize knowledge drawn from other courses; and (c) learn to collaborate with others in building knowledge and understanding. Required for all General Studies majors.

Prerequisites: (ENGL 2311 or ENGL 1143) or (ENGL 1302 or ENGL 1133) or (HUMA 1303 or HUMA 1301) or (PHIL 2023 or PHIL 2306) or PHIL 2303 or (ENGL 2153 or ENGL 2341) or (ENGL 2383 or ENGL 2331) or (HUMA 1403 or HUMA 1305).

GNST 4310 Diversity & Global Learning: 3 semester hours.

This high impact practice course will introduce students to obstacles that world populations face. The course will consist of field assignments that will help students explore cultures, life experiences, and worldviews different from their own. Experiential learning may be local, regional, or national. Required for all General Studies majors. This is a writing intensive course.

Prerequisites: GNST 3310 or GNST 3103.

GNST 4320 Multidisciplinary Capstone: 3 semester hours.

This course requires students to integrate and use fundamental concepts learned in previous courses within the students' degree concentration. Students nearing the end of their college years will create a project of some sort that integrates and applies what they've learned. The project might be a research paper, a performance or an ePortfolio of their "best work". Required for General Studies majors. This is a writing intensive course.

Prerequisites: (GNST 3310 or GNST 3101) and (GNST 4310 or GNST 4103).

Geography (GEOG)

Courses

GEOG 1302 Introduction to Human 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 1303 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.

GEOG 2311 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. Cross-Listed Course: CRIJ 2311.

Health (HLTH)

Courses

HLTH 1301 Foundation of Health Education: 3 semester hours.

This course introduces the student to the health education profession. Roles and responsibilities of health educators in a variety of occupational settings are described.

HLTH 1302 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 1304 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 1306 Environmental Health: 3 semester hours.

Health aspects of environment, including health problems related to water, air, and noise pollution, pesticides, population, and radiation.

HLTH 2302 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 2303 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 3300 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 3301 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 3302 Mental Health Promotion: 3 semester hours.

The course is designed to address health issues and problems that various ethnic groups face in the United States. Cultural differences in health behaviors, health care access, and promotion and prevention programs are emphasized.

HLTH 3303 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 3304 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 3305 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 3309 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 3311 Overview of the U.S. Healthcare system: 3 semester hours.

Overview of the U.S. healthcare system, including its evolution, utilization patterns, providers - human, institutional and organizational - financing, regulating, evaluating, and reforming.

HLTH 3387 Medical Terminology: 3 semester hours.

Medical terminology is the study of the principles of medical word building to help the student develop the extensive medical vocabulary used in health care occupations. Students receive a thorough grounding in basic medical terminology through a study of root words, prefixes and suffixes. The study focuses on correct pronunciation, spelling and use of medical terms. Anatomy, physiology, and pathology of disease are discussed.

HLTH 4199 Independent Study: 1 semester hour.

Reading, research, and/or field work on selected topics.

HLTH 4305 Health Law and Ethics: 3 semester hours.

This course presents an overview of legal and ethical issues facing managers and providers in health care. It provides students with a foundation of health law and ethics and reviews a wide variety of health care legal and ethical situations and dilemmas. The goals are to provide students with practical knowledge of health laws and ethics and their application in the real world of health care.

HLTH 4306 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 4307 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 4308 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 4310 Health Administration and Leadership: 3 semester hours.

In-depth study of a narrow range of topics considered to be of immediate concern to the health care industry. Special emphasis on problems unique to managers in the field of health administration. Current trends and problems in health administration affecting health administration technical and professional personnel. Designed to place emphasis in selected areas of administration and management.

HLTH 4399 Independent Study: 3 semester hours.

Readings, research, and/or field work on selected topics.

HLTH 5199 Independent Study: 1 semester hour.

Readings, research, and/or field work on selected topics.

HLTH 5304 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 5306 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 5307 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 5313 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 5314 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 5317 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 5318 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 5319 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.

HLTH 5399 Independent Study: 3 semester hours.

Readings, research, and/or field work on selected topics.

Health and Kinesiology (HKIN)

Courses

HKIN 1101 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.

HKIN 1106 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.

HKIN 1108 Fundamentals of 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.

HKIN 1109 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.

HKIN 1110 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.

HKIN 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.

HKIN 1112 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.

HKIN 1114 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.

HKIN 1120 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.

HKIN 1122 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.

HKIN 1123 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.

HKIN 1124 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.

HKIN 1125 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.

HKIN 1127 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.

HKIN 1128 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.

HKIN 1129 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.

HKIN 1130 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.

HKIN 1164 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.

HKIN 1306 First Aid, Safety and CPR: 3 semester hours.

Certification program (The American Red Cross) for emergency care procedures for illness, injury, and cardiopulmonary resuscitation.

HKIN 2307 Psycho-Social Aspects of Sport: 3 semester hours.

This course will engage psychological and sociological perspectives toward understanding sports and physical activity as both personal engagements and social phenomena. Topics will include sport-based youth development, mental health and physical activity, performance enhancement, and sport and social issues.

HKIN 2308 Practicum in Kinesiology and Sport: 3 semester hours.

This course provides experiential learning opportunities for students to apply and integrate knowledge acquired through coursework, develop skills, clarify values, and develop capacity to contribute to their professional and community organizations. Students will also be able to clarify and broaden their career goals further refining necessary competencies and skills for their proposed career objectives. Work is supervised by personnel within the approved work site.

Prerequisites: KINE 1303 or KINE 1330.

HKIN 3366 Exercise Physiology: 3 semester hours.

This course is a study of the physiological bases of exercise and physical conditioning through investigation of the body's response to exercise; measurement of the metabolic efficiency during exercise, neuromuscular efficiency, and body composition.

Prerequisites: (KINE 3023 or HKIN 3302) and (MATH 1113 or MATH 1314).

HKIN 4304 Athletic Injuries: 3 semester hours.

Theory and practice of prevention and treatment of athletic injuries; laboratory experience in techniques of massaging and bandaging.

Prerequisites: KINE 3023 or HKIN 3302.

History (HIST)

Courses

HIST 1301 United States History I: 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.

HIST 1302 United States History II: 3 semester hours.

Surveys modern American development: the industrial nation and its problems; expansionist and muckraker; the First Crusade, Normalcy and Reaction, Depression, and the New Deal; and the Second World War and after. Lectures, special readings, discussion, supervised study, and tests.

HIST 2300 Intro to Historical Methods: 3 semester hours.

This course is designed to introduce students to the historical profession, with emphasis on research methods, historical analysis and writing, and career paths for historians.

HIST 2301 Texas History: 3 semester hours.

Survey of Texas starting from Spanish colonization to the present. Emphasis will be placed on contributions made to the state of Texas by various ethnic groups.

HIST 2320 Military History: 3 semester hours.

Military History - Past Wars, conflicts and study of war heroes.

HIST 2321 World Civilizations I: 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 2322 World Civilizations II: 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 modern national-states, and colonialism and post colonialism.

HIST 2381 African-American History: 3 semester hours.

Introduction to the history of persons of African descent on the North American continent from the settlement of Jamestown to present. Integral to students' exposure to African-American History will be their exposure to basic research methods and writing techniques. Students should be prepared to examine major issues and historical events including, but not limited to: the Trans-Atlantic Slave Trade, the black presence in Colonial America, the development of chattel slavery, Abolitionism, Emancipation, Jim Crow, the Nadir, the Great Migration, the Harlem Renaissance, the Civil Rights Movement, and Black Power Era.

HIST 2383 History of HBCUs: 3 semester hours.

This course is an in-depth history of Historically Black Colleges and Universities (HBCUs), to include present and future roles, student activism, civil rights, the Black Power Movement, Black Studies, and intellectual and cultural traditions.

HIST 3301 Introduction to Public History: 3 semester hours.

An introduction to the role of historical memory in shaping our understanding of the past through examining the history of museums, archives, and historical research centers. Students will be introduced to the practices, theories and various sectors of public history, and will utilize an interdisciplinary approach in documenting, preserving and curating history.

HIST 3315 Ancient Egypt & the Near East: 3 semester hours.

An advanced survey of the civilizations of ancient Egypt and the Near East(Middle East). Students will read primary sources in translation and analyze the developments and interactions of ancient Assyrian, Babylonian, Egyptian, Hebrew, Hittite, Persian, and Sumerian civilizations.

HIST 3316 Ancient Greece: 3 semester hours.

An advanced survey of ancient Greece, tracing the developments of the cultural, political, intellectual, and artistic achievements of Greek civilization from the Bronze Age through the conquest of Macedonia. Students will read primary sources in translation and analyze important Greek personalities and events, as well as methods and problems of historical interpretation.

HIST 3317 Ancient Rome: 3 semester hours.

An advanced survey of ancient Rome, tracing the developments of the cultural, political, intellectual, and artistic achievements of Roman civilization from the foundation of the City, through Kingdom, Republic, and Empire, to the fifth century A.D. Students will read primary sources in translation and analyze important Roman personalities and events as well as methods and problems of of historical interpretation.

HIST 3318 Medieval Europe: 3 semester hours.

An advanced survey of political, social, economic, and cultural developments of European civilizations from the end of the Roman Empire to the dawn of the fifteenth-century Renaissance. Students will read primary courses in translation and analyze medieval personalities and events, as well as methods and problems of historical interpretation.

HIST 3322 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 3330 Introduction to Digital Storytelling: 3 semester hours.

An introduction to the fundamental aspects of narrative in digital environments as well as digital humanities. Students will learn to identify common elements of digital stories and analyze how scholars use digital tools and platforms to develop narratives. Students will also receive hands-on introduction to a range of digital storytelling tools.

Prerequisites: HIST 1301 or HIST 1313 or HIST 1302 or HIST 1323.

HIST 3331 Podcasting Oral Histories: 3 semester hours.

An exploration of the intersection between digital storytelling and oral tradition. Students will curate and contextualize historical narratives using digital audio. Through practical skills development and discussions, they will learn the responsible practice of conducting interviews and producing podcasts. By giving students the tools and knowledge to breathe life into oral histories, this course empowers them to share the diverse voices and stories that shape our collective past with a global audience.

Prerequisites: HIST 1301 or HIST 1302 or HIST 1323 or HIST 1313.

HIST 3332 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 3350 American Chattel Slavery: 3 semester hours.

This course examines the development of slavery in the making of American society, and particularly the American South, from the early colonial period through Reconstruction. Attention will be given to the following topics: the Atlantic origins of slavery; the emergence of colonial plantation societies; the development of a distinct slave society within the plantation; and the causes and consequences of secession (Civil War and Reconstruction). Finally, we will consider Southern life in the aftermath of emancipation and the establishment of Jim Crow racial segregation in the revival of antebellum racial ideologies.

HIST 3351 Global Black Power: 3 semester hours.

This course examines the history of the Black Power Movement in the 20th century, with special emphasis on the international and transnational exchanges of ideas and strategies to overthrow white supremacy. Students will explore not just the Movement within the United States, but also within African liberation movements, Caribbean revolts, anti-caste agitation in India, and indigenous protests in New Zealand and Australia. Prerequisites: (HIST 1301 or HIST 1313 and (HIST 1302 or HIST 1323)) or HIST 2301 or HIST 1333 and (HIST 2300 or HIST 2003).

HIST 3353 Civil Rights Movement: 3 semester hours.

This course focuses on America's Second Reconstruction, The Civil Rights Movement that ran throughout the entirety of the twentieth century. Students will engage materials that highlight the impact that the Civil Rights Movement had on the citizenship status of African-Americans. Major historical events and individuals covered include, but are not limited to: The Great Migration, the founding of the NAACP, Charles Hamilton Houston, ASA Philip Randolph, the March on Washington Movement, the Civil Rights Movement, Charles Hamilton Houston, Thurgood Marshall, Bayard Rustin, Martin Luther King, Jr., Linda Brown, Malcolm X, the Murder of Emmett Louis Till, Jackie Robinson, The Black Panther Party for Self-Defense, The Rise of Black Power, Affirmative Action, the rise of the Prison Industrial Complex, and the election of Barack Hussein Obama.

HIST 3360 Atlantic World: 3 semester hours.

This course analyzes the exploration/colonization of the Atlantic Basin, the genesis of slave societies in the Western Hemisphere, and the social, political, and economic legacies of colonial regimes in the Americas and along the western coast of Africa from 1400 to 1900. This course utilizes power, gender, race, and class as categories of analysis to bring light to understanding this region.

HIST 3361 Colonial Latin Amer & Carrib: 3 semester hours.

An advanced survey of Latin American and Caribbean histories and cultures. Special emphasis on colonization, slavery, and emancipation and independence movements particularly in connection to contemporary social, economic, and political issues impacting the region. Utilizing an interdisciplinary approach, the art, music, geography and literature of the regions will also be explored.

HIST 3370 Pre-Colonial Africa: 3 semester hours.

Study of African history before the arrival of the Europeans that 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 3371 Post-Colonial African History: 3 semester hours.***HIST 3375 African Diaspora: 3 semester hours.***

Introduction to the people of African descent. Students will explore origins on the continent of Africa, the places blacks were dispersed to as a result of the slave trade, emancipation movements across the globe, and the movements for black equality around the world. The course also examines the musical, artistic, literary, and cultural contributions of people of African descent.

HIST 3399 Independent Study: 1-3 semester hour.

Readings, research, and/or field work on selected topics.

HIST 4195 TExES Prep-Hist/Soc Studies: 1 semester hour.

This course is designed to help students prepare to take the Texas Examination of Educator Standards (TExES) in History/Social Studies. This course is typically taken the semester before Student Teaching, or during the senior year for those who are doing alternative certification.

HIST 4305 Early Christianity: 3 semester hours.

An exploration of early Christianity from its emergence within Second-Temple Judaism to its spread and influence within the Roman world to the fourth century AD. Students will read primary sources in translation and analyze the development of the Church as an institution and community, issues of Christian doctrine and discipline, as well as methods and problems of historical interpretation.

HIST 4344 Special Topics: 3 semester hours.

This course will focus on specific historical topics that the professor deems appropriate and student's desire. May be repeated for credit when topics vary.

HIST 4381 African-American Hist to 1876: 3 semester hours.

Intensive readings in a broad range of texts that form the foundation of the African-American historical experience. Students will deal with readings that cover an expansive time frame ranging from the colonization of Africa through the ending of the American Reconstruction. This course will provide students an opportunity to read seminal texts by scholars who have written about the African-American experience. Major issues and historical figures covered: the colonization of Africa, the Trans-Atlantic Slave Trade, American chattel slavery, Black Abolitionism, Frederick Douglass, Nat Turner, Linda Brent, Harriet Tubman, Sojourner Truth, the Underground Railroad, Emancipation, and the Reconstruction era.

HIST 4382 African-Amer Hist Since 1876: 3 semester hours.

Intensive readings in a broad range of texts that form the foundation of the African-American historical experience during the modern period. Students will deal with readings covering a period that extends from the Nadir through contemporary America. This course will provide students an opportunity to read seminal texts by scholars who have written about the post-slavery African-American experience. Major issues and historical figures covered include, but are not limited to: the Nadir, Booker T. Washington, W.E.B. DuBois, The Great Migration, The Harlem Renaissance, the March on Washington Movement, the Civil Rights Movement, the Murder of Emmett Louis Till, Malcolm X, the Rev. Dr. Martin Luther King, Jr., the Black Panther Party for Self-Defense, the decline of Urban America, the rise of the Prison Industrial Complex, and the election of Barack Hussein Obama.

HIST 4383 Malcolm X and the Nation of Islam: 3 semester hours.

An advanced survey of the historical events of the life, assignment, and impact of Malcolm X (Omwale) both within The Nation (NOI) and in the nation (USA). This will include his upbringing, family, the rise of Garveyism and the UNIA, the influence of Elijah Muhammad and the growth of the NOI (Nation of Islam), Civil Rights and Black Power Movements.

HIST 4390 Senior Seminar: 3 semester hours.

Advanced training in historical methods and historiography designed to measure student's understanding and mastery of the discipline.

HIST 4394 History and Social Studies Methods: 3 semester hours.

This course focuses on 1) the mastery of historical facts related to US, world, and Texas histories, 2) understanding the various teaching methods used in the social studies classroom, and 3) the development of lesson plans for the EC – 6, and 4-8 Social Studies classrooms. The student will also be introduced to the social studies standards of the Texas Essential Knowledge and Skills (TEKS) for licensure in Texas public schools.

Prerequisites: (HIST 1301 or HIST 1313 and (HIST 1302 or HIST 1323)) or HIST 2301 or HIST 1333 or POSC 2305 or POSC 1113 or POSC 2306 or POSC 1123.

HIST 4399 Independent Study: 3 semester hours.

Readings, research, and/or field work on selected topics.

Honors Colloquium (HCOL)

Courses

HCOL 1321 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 2351 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 2353 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 2355 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 3350 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 3351 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 3352 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.

Human Nutrition & Food (HUNF)

Courses

HUNF 1130 Introduction to Dietetics: 1 semester hour.

Students will be introduced to the profession of dietetics. The history of dietetics, career options, professional development (dietetics portfolio), the Academy code of ethics, standards of practice, the legislative process, and professional resources will be discussed.

HUNF 1322 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 2353 Intermediate Nutrition: 3 semester hours.

Introductory 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 1322 or HUSC 1343.

HUNF 2363 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 2365 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 1322 or HUSC 1343.

HUNF 2366 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 3360 Nutritional Biochemistry: 3 semester hours.

A study of the biochemical basis of nutrition, the physiochemical properties of nutrients, and other essential biochemical and their roles in physiological and metabolic processes.

Prerequisites: HUNF 2533.

HUNF 3361 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 1322 or HUSC 1343.

HUNF 3362 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 2303 or CHEM 2033 and (CHEM 2203 or CHEM 2032) and (HUNF 2365 or HUNF 2653).

HUNF 3363 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: HUNF 2353 or HUNF 2533.

HUNF 3364 Food and Culture: 3 semester hours.

Food and Culture explores the connections between what we eat and who we are through a cross-cultural study of how personal and social identities are formed via food production, preparation, and consumption.

Prerequisites: HUNF 1301 or HUNF 1130.

HUNF 3365 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 2353 or HUNF 2533.

HUNF 3367 Nutritional Assessment: 3 semester hours.

The course provides an in-depth to the purpose, concepts, methods, and scientific basis for assessment of nutritional status for individuals and groups. Students will have the opportunity to apply nutritional assessment principles and methods discussed in class in a supervised setting.

Prerequisites: HUNF 2533 and MATH 1113.

HUNF 3399 Independent Study: 3 semester hours.

Readings, research and/or field work on selected topics.

HUNF 4330 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 4347 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 3365 or HUNF 3653 and (HUNF 4366 or HUNF 4663).

HUNF 4360 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 3362 or HUNF 3623.

HUNF 4361 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 1342 or MATH 2003.

HUNF 4366 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 3361 or HUNF 3613) and (HUNF 3365 or HUNF 3653).

HUNF 4367 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 4366 or HUNF 4663.

HUNF 4369 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 1322 or HUSC 1343 and (HUNF 3361 or HUNF 3613).

HUNF 4399 Independent Study: 3 semester hours.

Readings, research and/or field work on selected topics.

Human Science (HUSC)

Courses

HUSC 1135 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 1322 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 3332 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 3337 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.

HUSC 3399 Independent Study: 3 semester hours.

Readings, research and/or field work on selected topics.

HUSC 4399 Independent Study: 3 semester hours.

Readings, research, and/or field work on selected topics.

HUSC 4430 Family Consumer Economics and Management: 4 semester hours.

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.

HUSC 4630 Human Sciences Internship: 6 semester hours.

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.

HUSC 5331 Dietetic Seminar II: 3 semester hours.

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.

HUSC 5332 Marriage and Family Therapy Pre-Practicum: 3 semester hours.

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 5375 or HUSC 5753.

HUSC 5334 Research Problems: 3 semester hours.

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.

HUSC 5335 Dietetic Seminar I: 3 semester hours.

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.

HUSC 5351 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 5355 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 5356 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 5339 or HUSC 5393) and (HUSC 5351 or HUSC 5533) and (HUSC 5354 or HUSC 5543) and (HUSC 5355 or HUSC 5553).

HUSC 5358 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.

Prerequisites: HUSC 5355 or HUSC 5553.

HUSC 5361 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 5362 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 5364 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 5368 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 5369 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 or HUSC 5339 and (HUSC 5543 or HUSC 5354) and (HUSC 5553 or HUSC 5355).

HUSC 5370 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 5371 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 5374 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 5399 Independent Study: 3 semester hours.

Readings, research, and/ or field placement focusing on pre-selected issues.

HUSC 5632 Advanced Practice in Dietetics I: 6 semester hours.

Preplanned experience at the professional level in dietetic administration, food service management, clinical and therapeutic nutrition and community and public health nutrition.

HUSC 5634 Marriage and Family Therapy Practicum II: 6 semester hours.

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 5356 or HUSC 5563.

HUSC 5635 Advanced Practice in Dietetics II: 6 semester hours.

Continuation of Advanced Practice in Dietetics I.

HUSC 5699 Independent Study: 1-6 semester hour.

Readings, research, and/ or field placement focusing on pre-selected issues.

Humanities (HUMA)

Courses

HUMA 1301 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 1305 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 1301 or ENGL 1123.

Independent Study (FLLT)

Courses

FLLT 3399 Independent Study: 1-3 semester hour.

Readings, Research, and/or field work on selected topics at the 3000 level.

Prerequisites: SPAN 2312 or SPAN 2023 or CHIN 2312 or CHIN 2023.

Juvenile Forensic Psyc (JPSY)

Courses

JPSY 5311 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 5312 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 5342 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 5343 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 5345 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 5378 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 5384 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 5385 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 5397 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 5385 or JPSY 5853.

JPSY 5398 Thesis: 3 semester hours.

Independent and original research leading to an acceptable master's thesis. Required of thesis option.

Juvenile Justice (JJUS)

Courses

JJUS 5311 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 5312 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 5322 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 5324 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 5325 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 5326 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 5343 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 5344 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 5312 or JJUS 5123 and (JJUS 5376 or JJUS 5763) and (JJUS 5394 or JJUS 5943).

JJUS 5345 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 5352 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 5376 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 5377 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 5378 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 5391 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 5394 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 5312 or JJUS 5123) and (JJUS 5376 or JJUS 5763).

JJUS 5396 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 regression and nonparametric methods. Students learn the use and value of each statistical technique.

Prerequisites: JJUS 5312 or JJUS 5123 and (JJUS 5376 or JJUS 5763) and (JJUS 5394 or JJUS 5943).

JJUS 5397 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 5698 Thesis: 6 semester hours.

Independent and original research leading to an acceptable master's thesis.

JJUS 7165 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 7311 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 7363 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 7364 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 7365 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 7366 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 7367 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 7369 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 7371 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 7374 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 7376 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 7378 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 7385 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 7386 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 7388 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 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 7389 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.

JJUS 7392 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 or JJUS 5394.

JJUS 7395 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 7392 or JJUS 7943 and (JJUS 7396 or JJUS 7963).

JJUS 7396 Advanced Statistical Techniques I: 3 semester hours.

Discusses nonparametric and parametric statistical techniques including various ordinal tests, multiple regression, logistic regression, discriminant analysis, multivariate analysis of variance, canonical correlation, factor analysis, cluster analysis, and multidimensional scaling.

Prerequisites: JJUS 5396 or JJUS 5963.

JJUS 7397 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 7396 or JJUS 7963.

JJUS 7399 Independent Study: 1 semester hour.

Readings, research and/or field work on selected topics.

JJUS 8191 Dissertation: 1 semester hour.

Independent and original research leading to an acceptable doctoral dissertation. May be repeated.

JJUS 8391 Dissertation I: 3 semester hours.

Independent and original research leading to an acceptable doctoral dissertation. May be repeated.

JJUS 8392 Dissertation II: 3 semester hours.

Independent and original research leading to an acceptable doctoral dissertation. May be repeated.

Prerequisites: JJUS 8391 or JJUS 8913.

JJUS 8393 Dissertation III: 3 semester hours.

Independent and original research leading to an acceptable doctoral dissertation. May be repeated.

Prerequisites: JJUS 8392 (may be taken concurrently) or JJUS 8923 (may be taken concurrently).

JJUS 8394 Dissertation IV: 3 semester hours.

Independent and original research leading to an acceptable doctoral dissertation. May be repeated.

Prerequisites: JJUS 8393 (may be taken concurrently) or JJUS 8933 (may be taken concurrently).

Kinesiology (KINE)

Courses

KINE 1201 Sports Skills I: 2 semester hours.

Theory and application of fundamental skills in flag and touch football, soccer, wrestling and gymnastics I.

KINE 1202 Sports Skills II: 2 semester hours.

Emphasis given to theory and application skills for fundamentals in badminton, bowling, tennis, and racquetball.

KINE 1208 Fundamentals of Human 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 1215 Low Organized Games: 2 semester hours.

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 1330 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 2205 Intramural and Recreational Sports: 2 semester hours.

Theory and practice in organizing and conducting tournaments, meets, and field days.

KINE 2303 Lifeguarding: 3 semester hours.

Demonstration and practice in knowledge and skills to prevent, recognize, and respond to aquatics emergencies. Students have opportunity to complete requirements for the American Red Cross Lifeguarding Certification. Recommended proficiency in five basic strokes (front and back crawls; elementary back, side and breast strokes).

KINE 2304 Coaching Individual and Dual Sports: 3 semester hours.

This course is designed for majors with intermediate and advanced skills. Students deal with strategy, rules, and court layouts with special emphasis on fundamentals and materials for individual and dual sports.

Prerequisites: KINE 1151 or KINE 1215.

KINE 2306 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 2307 Psycho-Social Aspects of Sport: 3 semester hours.

This course will engage psychological and sociological perspectives toward understanding sports and physical activity as both personal engagements and social phenomena. Topics will include sport-based youth development, mental health and physical activity, performance enhancement, and sport and social issues.

KINE 2308 Practicum in Kinesiology and Sport: 3 semester hours.

This course provides experiential learning opportunities for students to apply and integrate knowledge acquired through coursework, develop skills, clarify values, and develop capacity to contribute to their professional and community organizations. Students will also be able to clarify and broaden their career goals further refining necessary competencies and skills for their proposed career objectives. Work is supervised by personnel within the approved work site.

Prerequisites: KINE 1303 or KINE 1330.

KINE 3301 Water Safety Instruction: 3 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 Certification.

KINE 3302 Applied Anatomy and Kinesiology: 3 semester hours.

A scientific study of the structural kinesiology and biomechanics of human movement.

Prerequisites: (BIOL 2401 or BIOL 1054) and (BIOL 2402 or BIOL 1064) and (KINE 1208 or KINE 1082).

KINE 3303 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 or KINE 1215) and (KINE 1082 or KINE 1208).

KINE 3305 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 1303 or KINE 1330).

KINE 3306 Theory and Practice of Coaching: 3 semester hours.

Theory and strategy of coaching football, basketball, and volleyball.

Prerequisites: (KINE 1082 or KINE 1208) and (KINE 1303 or KINE 1330).

KINE 3365 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.

Prerequisites: (KINE 1082 or KINE 1208) and (KINE 1303 or KINE 1330).

KINE 4303 Measurement and Evaluation: 3 semester hours.

This course is a study of various kinds of tests and test usage in the field of health and kinesiology. Students are exposed to and participate in practical experiences in the 1) construction and administration of tests, 2) application and use of elementary statistics to manipulate data, and 3) interpretation of results.

Prerequisites: KINE 3023 or KINE 3302.

KINE 4304 Athletic Injuries: 3 semester hours.

Theory and practice of prevention and treatment of athletic injuries; laboratory experience in techniques of massaging and bandaging.

Prerequisites: KINE 3023 or KINE 3302.

KINE 4305 Special Topics in Health and Kinesiology: 3 semester hours.

Detailed study of selected topic and activities.

KINE 4306 Adapted Physical Activity: 3 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.

KINE 4307 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 3033 or KINE 3303.

KINE 4308 Administrative Management of Kinesiology: 3 semester hours.

This course studies the principles and fundamentals in the organization, administration and supervision of the health, kinesiology, intramural, and athletic programs.

Prerequisites: KINE 1208 and KINE 1217 and BIOL 2301 and BIOL 2101 and BIOL 2302 and BIOL 2102.

KINE 4309 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.

Prerequisites: KINE 4232 or KINE 4322.

KINE 4310 Research Methods: 3 semester hours.

This course is designed to acclimate students to current research and the research process in their chosen field of study through exploration of scientific writings.

KINE 4315 Education Preparation: 3 semester hours.

Detailed study of selected topics and activities.

KINE 4322 Advanced Athletic Injuries: 3 semester hours.

This course provides knowledge of clinical procedures with an emphasis on application techniques, therapeutic modalities, therapeutic exercise, and rehabilitative practices.

Prerequisites: KINE 4304 or KINE 4042.

KINE 4323 Fitness Program: 3 semester hours.

This course uses health, wellness and fitness assessments to develop healthy lifestyles.

KINE 4399 Independent Study: 1-3 semester hour.

Readings, research and/or field work on selected topics.

KINE 4619 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.

Prerequisites: KINE 2308.

Management (MGMT)

Courses

MGMT 1301 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 1316 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 1314 or MATH 1113) and (MATH 1324 or 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 leverage digital resources for career development, resume writing and analysis, interviewing, on-the-job performance and the assessment process, and career planning.

MGMT 2301 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.

Prerequisites: MGMT 1301 or MGMT 1013.

MGMT 2320 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 2326 Leadership in a Global Environment: 3 semester hours.

This course focuses on global leadership approaches in an increasingly multicultural world. Students will learn various leadership techniques and communication approaches critical to effective global leadership. Various leadership platforms including Transactional, Transformational, Authentic and contingency theory.

MGMT 3301 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 1324 or MATH 1153.

MGMT 3302 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.

Prerequisites: MGMT 3301 or MGMT 3013.

MGMT 3310 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 1301 or MGMT 1013.

MGMT 3311 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 3310 or 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 or MGMT 2301.

MGMT 3334 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 3301 or MGMT 3013) and (MGMT 3310 or MGMT 3103).

MGMT 3335 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 3310 or MGMT 3103.

MGMT 3337 Compensation and Total Rewards: 3 semester hours.

This course covers the role of the Human Resources Department as it relates to compensation and total rewards. The course explores alternative compensation philosophies used to define total rewards and the resultant impact on motivating employees to deliver superior performance ensuring organizational success.

Prerequisites: MGMT 3335 or MGMT 3353.

MGMT 3339 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 3310 or MGMT 3103.

MGMT 3342 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 3302 or MGMT 3023.

MGMT 3364 Employee Training and Development: 3 semester hours.

This course focuses on employee development and training. Topics include management role in assessing employee competencies, developing and selecting training programs for employee career development and learning as well as adaptation to organizational change.

Prerequisites: MGMT 3335.

MGMT 4000 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 4330 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 3310 or MGMT 3103) and (MRKT 3310 or MRKT 3103) and (FINA 3310 or FINA 3103).

MGMT 4332 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 3310 or MGMT 3103) and (MGMT 3301 or 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 or MGMT 3301) and (MGMT 3103 or MGMT 3310).

MGMT 4335 Employment Law: 3 semester hours.

This course covers the law governing the employment relationship. Topics include employee access to job opportunities, discriminatory employment practices, regulation of wages, hours, and benefits, occupational safety and health, unjust discharge, EEO, sexual harassment, retaliation, Title VII and IX, and regulations protecting retirement benefits.

Prerequisites: MGMT 3335 or MGMT 3353.

MGMT 4336 Recruitment and Staffing: 3 semester hours.

This course explores strategies used by companies to identify, recruit and staff top talent around the world. Topics include international as well as domestic concerns and consideration of multiple staffing levels (such as executives, mid-management, and temporary employees).

Prerequisites: MGMT 3335 or MGMT 3353.

MGMT 4337 HR Data Analytics: 3 semester hours.

The course explores HR use of data analytics to examine common HR challenges of hiring top talent, engaging workforce, managing retention and evaluating workforce diversity. Using a cost-based approach, students learn to calculate the business impact and return on investment associated with HR initiatives.

Prerequisites: MGMT 3335 or MGMT 3353.

MGMT 4339 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 4341 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 U.S. firms, expatriation and repatriation and challenges for U.S. firms, etc.

Prerequisites: MRKT 3310 or MRKT 3013 and (MGMT 3310 or MGMT 3013) and (ECON 2302 or ECON 2113) and (ECON 2301 or ECON 2123).

MGMT 4343 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 3301 or MGMT 3013.

MGMT 4345 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 4354 ERP Apps in Supply Chain: 3 semester hours.

This course is designed to provide an overview of Enterprise Resource Planning (ERP) systems and supply chain business processes and introduce the role of ERP systems to manage supply chains and make effective business decisions. During the semester, students will explore the interaction among the different business processes while simulating SAP operating environment by ERPsim.

Prerequisites: MGMT 3301 or MGMT 3013 and MGMT 4333.

MGMT 4399 Independent Study: 1-3 semester hour.

Reading, research, and/or field work on selected topics.

MGMT 5310 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 5311 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 5312 Business Analytics and Modeling: 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.

Prerequisites: (MGMT 5311 or MGMT 5113) or (MGMT 3310 or MGMT 3013).

MGMT 5332 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 5310 or ACCT 5103 and BCOM 5320 or BCOM 5203 and ECON 5310 or ECON 5103 and FINA 5310 or FINA 5103 and MRKT 5330 or MRKT 5303.

MGMT 5334 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 5335 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 5339 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 5344 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.

Prerequisites: MGMT 5312 or MGMT 5123.

MGMT 5361 Special Topics: 3 semester hours.

Explores and examines contemporary subjects and trends in business. Topics deal with issues of current importance.

MGMT 5399 Independent Study in Management: 1-3 semester hour.

Supervised readings, research, and/or field work on selected topics in management.

Management for Executives (EMGM)

Courses

EMGM 5310 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 5311 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 5330 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 5340 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 5350 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 5390 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.

Management Information Systems (MISY)

Courses

MISY 1305 Business Computer Applications: 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 2301 Fundamentals of MIS with ERP: 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 ERP.

Prerequisites: MISY 1305 or MISY 1013.

MISY 2315 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 2301 or MISY 2013.

MISY 3311 Introduction to Crisis Informatics: 3 semester hours.

Use of information and communication technologies (ICT) in crisis management; examines how information is managed, organized, coordinated, and used for crisis management; analyzes information needs and seeking behaviors during a crisis; explores how ICT can support organizations/communications in a crisis.

Prerequisites: MISY 2301 or MISY 2013.

MISY 3332 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 2301 or MISY 2013.

MISY 3339 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 2301 or MISY 2013.

MISY 3341 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 2301 or MISY 2013.

MISY 3342 System Analysis & 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 problem-solving and modeling software tools. Prerequisites: MISY 2301 or MISY 2013.

MISY 3343 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 2315 or MISY 2153.

MISY 3399 Independent Study in MIS: 3 semester hours.

Supervised reading, research, and/or field work on selected topics in management information system (MIS). Prerequisites: MISY 2301 or MISY 2013.

MISY 4332 Enterprise Cybersecurity: 3 semester hours.

The course will provide students with essential knowledge in data security and the technology involved in securing data. It will also provide a forum to bring in current issues in the MIS area such as information security; big data, mobile/wireless technology, cloud computing and project management. Students will gain insight into the importance of cybersecurity and the integral role of cybersecurity professionals in data security. Cross-Listed Course: CRIJ 4333 Prerequisites: MISY 3332 or MISY 3323.

MISY 4335 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 3310 or MGMT 3103 and (MISY 2301 or MISY 2013).

MISY 4345 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 3310 or MGMT 3103 and (MISY 3332 or MISY 3323).

MISY 4354 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 3341 or MISY 3413) and (MGMT 3301 or MGMT 3013).

MISY 4399 Independent Study: 3 semester hours.

Reading, research, and/or field work on selected topics.

MISY 5310 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 5331 Crisis Informatics: 3 semester hours.

The course explores the use of information and communication technologies (ICT) in crisis management. In particular, it examines how information (including social media data) is managed, organized, coordinated, and used for crisis management. This course also analyzes information needs and seeking behaviors during a crisis, and explores how ICT can support organizations/communities in a crisis. Prerequisites: MISY 5310 or MISY 5103.

MISY 5332 Data Com and 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 5310 or MISY 5103.

MISY 5341 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 5310 or MISY 5103.

MISY 5342 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 5310 or MISY 5103.

MISY 5347 Bus Intelligence and Analytics: 3 semester hours.

Covers relevant topics such as intelligence, data analytics, big data, business process, OLAP, data warehousing, data marts, data mining, and data access tools.
Prerequisites: MISY 5310 or MISY 5103.

MISY 5353 Special 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 5310 or MISY 5103.

Managerial Communication for Executives (EMCO)

Courses

EMCO 5302 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.

EMCO 5320 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 3310 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 1301 or MGMT 1013.

MRKT 3311 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 3310 or MRKT 3103.

MRKT 3331 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 3310 or MRKT 3103.

MRKT 3332 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 3310 or 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 or MRKT 3310) and (PSYC 1113 or PSYC 2301).

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 or MRKT 3310.

MRKT 4334 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 3310 or MRKT 3103) and (MGMT 3301 or MGMT 3013).

MRKT 4335 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 3310 or MRKT 3103.

MRKT 4337 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 3310 or MRKT 3103.

MRKT 4339 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 3310 or MRKT 3103) and MRKT 3333.

MRKT 4341 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 3310 or MRKT 3103.

MRKT 4342 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 3310 or MRKT 3103 and (MISY 2301 or MISY 2013).

MRKT 4349 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 3310 or MRKT 3103) and MRKT 3333.

MRKT 4399 Independent Study: 3 semester hours.

Readings, research and/or field work on selected topics.

MRKT 5300 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 5330 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 5331 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 5300 or MRKT 5003.

Marketing for Executives (EMRK)

Courses

EMRK 5343 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.

Mathematics (MATH)

Courses

MATH 0010 Mathematics Basics Lab: 0 semester hours.

This course is designed to improve the student skills involving basic arithmetic computations to include integers, fractions, decimals, and percents. There will be a strong emphasis on solving and graphing linear equations as well as basic polynomial manipulations.

MATH 0021 Mathematics Non-course Based Option I: 0 semester hours.

This non-course based option is designed to provide individualized developmental mathematics instructions to students who did not successfully complete MATH 0313.

Prerequisites: MATH 0313 or MATH 0133.

MATH 0030 Comp Math Skills: 0 semester hours.

This course will enhance the student's performance in college level mathematics. It improves skills in solving quadratic equations, manipulating polynomials, radicals and exponential expressions. It develops a basic understanding of the mathematical functions and concepts necessary for successfully completing the college level course.

Prerequisites: TSI Math with a score of 347.

Co-requisites: MATH 1314, MATH 1332, PSYC 2317.

MATH 0132 Comprehensive Math Skills for Contemporary Algebra: 1 semester hour.

This course will enhance the student's performance in Contemporary College Algebra. It improves skills in solving linear and power equations, manipulating polynomial and exponential expressions, and graphing and interpreting two-variable equations. It develops an understanding of numeracy and the real number system; and the basic mathematical functions and concepts necessary for successfully completing the Contemporary College Algebra course. A co-requisite course for those students who have not passed TSIA Math, to be taken in conjunction with Contemporary College Algebra.

Co-requisite: MATH 1332.

MATH 0135 Comprehensive Math Skills for College Algebra: 1 semester hour.

This course will enhance the student's performance in College Algebra. It improves skills in solving quadratic equations, manipulating polynomials, radicals and exponential expressions. It develops a basic understanding of the mathematical functions and concepts necessary for successfully completing the College Algebra course. A co-requisite course for those students who have not passed TSIA Math, to be taken in conjunction with College Algebra.

Co-requisite: MATH 1314.

MATH 0311 Comprehensive Math Skills for College Algebra: 3 semester hours.

This course is designed to present a careful and guided review of the basic mathematical concepts to improve and strengthen the student fundamental understanding of mathematics. The topics will include solving and graphing linear equations and inequalities, solving linear systems, determining the equation of a line and slope of lines. The course will also cover manipulation of polynomials to include factoring, ratios, solving rational equations and geometric applications.

Prerequisites: MATH 0010 or MATH 0100 or TSI Math with a score of 336.

Co-requisite: MATH 1314.

MATH 0312 Basic Math II: 3 semester hours.

This course is an introductory course to Algebra designed to make the transition to College Algebra more successful. It provides the student with background knowledge in fundamental algebra and skills in mathematics. It will concentrate on developing skills in solving and graphing linear equations, simplifying and factoring polynomials, solving quadratic equations and combining and simplifying rational expressions and exponents.

MATH 0313 Pre-Algebra: 3 semester hours.

This course is designed to make the transition to College Algebra more successful. Topics include advanced algebraic operations, factoring with an emphasis on rational, radical, and quadratic equations. Students will be introduced to functions with emphasis on function evaluation, graphs, composition, and inverse.

Prerequisites: MATH 0311 or MATH 0113 or (TSI Math with a score of 336 and TSI DIAG ElemAlg with a score of 06).

MATH 1314 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 1332/1103 and MATH 1314/1113. (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 1316 Trigonometry: 3 semester hours.

Trigonometric functions, radian, logarithms, functions of composite angles, identities, and trigonometric equations.

Prerequisites: MATH 1314 or MATH 1113.

MATH 1324 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 1314 or MATH 1113) or (MATH 1332 or MATH 1103) or (MATH 1511 or MATH 1115).

MATH 1325 Calculus-Business, Life and Social Sciences: 3 semester hours.

Derivatives, curves, sketching, and optimization techniques for differentiation. Logarithms and exponential functions with applications, integral techniques and application of integrals, and multivariate calculus.

Prerequisites: MATH 1324 or MATH 1153.

MATH 1332 Contemporary College Algebra: 3 semester hours.

Intended for Non STEM (Science, Technology, Engineering, and Mathematics) majors. Topics include introductory treatments of sets and logic, financial mathematics, probability and statistics with appropriate applications. Number sense, proportional reasoning, estimation, technology, and communication should be embedded throughout the course. Additional topics may be covered. Cannot receive credit for both MATH 1332/1103 and MATH 1314/1113.

MATH 1342 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 1314 or MATH 1113) or (MATH 1332 or MATH 1103) or (MATH 1511 or MATH 1115).

MATH 1511 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 2305 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 2413 or MATH 1124.

MATH 2316 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 1314 or MATH 1113) or (MATH 1332 or MATH 1103).

MATH 2318 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 1314 or MATH 1113) or (MATH 1332 or MATH 1103).

MATH 2320 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 2414 or MATH 2024.

MATH 2413 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 or MATH 1314) and (MATH 1123 or MATH 1316)) or MATH 1115 or MATH 1511.

MATH 2414 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 2413 or MATH 1124.

MATH 3300 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 2316 or MATH 2163.

MATH 3301 Modern Algebra: 3 semester hours.

Number theory, groups, rings, integral domains, and fields.

Prerequisites: MATH 2305 or MATH 2053.

MATH 3302 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 2414 or MATH 2024.

MATH 3307 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 2414 or MATH 2024.

MATH 3310 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 2413 or MATH 1124) or (MATH 1325 or MATH 2153).

MATH 3316 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 2316 or MATH 2163.

MATH 3319 Introduction to MATLAB and PHYTHON: 3 semester hours.

Introduces the basic concepts of programming and problem-solving using MATLAB and Python. Topics include data types, data input/output, control structures, functions, scripts, debugging, data visualization techniques, and symbolic computation, data simulation, and basic algorithms. Programming projects related to mathematical and statistical applications and elementary numerical methods. Prerequisites: MATH 2413 or MATH 1124.

MATH 3361 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 interval estimation, hypothesis testing, p-values, simple linear regression, analysis of categorical data, applications in biology and biomedicine. Prerequisites: MATH 2413 or MATH 1124.

MATH 3401 Calculus III: 4 semester hours.

Calculus of functions of several variables, calculus of vector valued functions, partial differentiation, multiple integrals. Prerequisites: MATH 2414 or MATH 2024.

MATH 3568 Math for Engineers: 5 semester hours.

Matrices are determinants, Vector Spaces, Eigenvalues and Eigenvectors, Power Series, Laplace Transform, Fourier Series and Orthogonal Functions; Multivariate Functions: Sample Space, Random Variables, Probability Distributions, Moments of a Random Variable, Sum of Independent Variables, Conditional Probability, Law of Large Numbers, Central limit Theorem, Inference Concerning Means, Variances and proportions, Analysis of Variance, Statistical Content of Quality Improvement Programs, Reliability, Probabilistic Description of Stochastic Processes, Poisson Process, Simple Queuing Models in Engineering. Prerequisites: MATH 2320 or MATH 2043.

MATH 3599 Independent Study: 1-5 semester hour.

Reading, research, and or field work on selected topics.

MATH 4100 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 4190 LaTeX for Mathematics and Science: 1 semester hour.

1 semester hour. This course is an introduction to the LaTeX software system, which is used for document preparation in mathematics, science, and engineering. Students will learn how to use LaTeX to typeset documents such as homework, articles, presentation slides, and an academic poster. Students will develop enough familiarity with LaTeX so that they are able to prepare many technical documents. Prerequisites: MATH 2413 or MATH 1124.

MATH 4300 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 1316 or MATH 1123.

MATH 4305 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 4306 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 3307 or MATH 3073) and (COMP 1315 or COMP 1013).

MATH 4308 Advanced Calculus I: 3 semester hours.

Number sequences, limits, sequential functions, properties of continuous functions, and mean value theorem and Riemann Integral. Prerequisites: MATH 2320 or MATH 2043 and (MATH 3401 or MATH 3014).

MATH 4317 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. Prerequisites: MATH 2320 or MATH 2043.

MATH 4389 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 4599 Independent Study: 1-5 semester hour.

Reading, research, and/or field work on selected topics.

MATH 5399 Independent Study: 3 semester hours.

Course description will vary according to course chosen for independent study.

Mechanical Engineering (MCEG)

Courses

MCEG 1101 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 1102.

MCEG 1102 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 2301 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 2414 or MATH 2024) and (PHYS 2325 or PHYS 2513).

MCEG 2302 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 2301 or CVEG 2043.

MCEG 2303 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 1303 or CHEM 1033) or (CHEM 1403 or CHEM 1034) or (CHEM 1304 or CHEM 1043).

MCEG 3101 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 2325 or PHYS 2513) and (PHYS 2125 or PHYS 2511) and (PHYS 2126 or PHYS 2521).

MCEG 3102 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 3101 or MCEG 3011) and (MCEG 3301 (may be taken concurrently) or MCEG 3013 (may be taken concurrently)) and (ELEG 1304 (may be taken concurrently) or ELEG 1043 (may be taken concurrently)).

MCEG 3103 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 3303.

MCEG 3301 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 2320 or MATH 2043) and (MCEG 3306 or MCEG 3063).

MCEG 3302 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 2301 or MCEG 2013) and (MATH 2414 or MATH 2024).

MCEG 3303 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 2303 or MCEG 2023.

MCEG 3304 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 2332 or CVEG 2063) and (MCEG 1102 or MCEG 1021).

MCEG 3305 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 1102 or MCEG 1021) and (MCEG 2302 or MCEG 2053).

MCEG 3306 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 2301 or MCEG 2013) and (MATH 2320 (may be taken concurrently) or MATH 2043 (may be taken concurrently)) and (MCEG 2302 (may be taken concurrently) or MCEG 2053 (may be taken concurrently)).

MCEG 3307 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 4317 (may be taken concurrently) or MATH 4173 (may be taken concurrently).

MCEG 3312 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 3311 or CHEG 3113.

MCEG 3319 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 4317 (may be taken concurrently) or MATH 4173.

MCEG 3615 Mechanical Engineering Internship I: 6 semester hours.

An internship program of work experience with an approved engineering firm.

MCEG 4247 Senior Design and Professionalism-1: 2 semester hours.

This is the first course of a two-semester capstone experience (MCEG 4482 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 3304 or MCEG 3043) and (MCEG 3101 or MCEG 3011) and (MCEG 3302 or MCEG 3023) and (MCEG 3301 (may be taken concurrently) or MCEG 3013).

MCEG 4248 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 4247 or MCEG 4472.

MCEG 4304 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 3304 or MCEG 3043) and (MCEG 3305 (may be taken concurrently) or MCEG 3053 (may be taken concurrently)).

MCEG 4306 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 forced 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 2302 or MCEG 2053) and (MATH 2043 or MATH 2320).

MCEG 4308 Design Thinking and Device Development: 3 semester hours.

This course, designed for non-business majors, teaches students to identify customer needs and manage critical resources while incorporating constraints governing how products must be designed, developed, approved, and brought to market. This course is intended to introduce students to some of the complexities of designing robust devices that meet customer needs and engineering requirements. Students will work in teams on projects that reinforce these concepts. Students will be equipped with the analytical skills necessary to understand linkages between research and development, product design, intellectual property protection, and entrepreneurship.

MCEG 4309 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 2332 or CVEG 2063) and (MCEG 3301 (may be taken concurrently) or MCEG 3013 (may be taken concurrently)).

MCEG 4316 Special Topics: 3 semester hours.

Selected current and emerging topics in mechanical engineering depending on need determined by the department.

MCEG 4318 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 3302 (may be taken concurrently) or MCEG 3023 and (MCEG 3306 or MCEG 3063).

MCEG 4399 Independent Study: 3 semester hours.

Reading, research, and/or field work in selected topics.

MCEG 4615 Mechanical Engineering Internship II: 6 semester hours.

Continuation of MCEG 3156.

MCEG 5302 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 5303 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 5312 Advanced Combustion Processes: 3 semester hours.

Advanced Combustion Processes will cover the advanced treatment of fundamental combustion and flame processes, conservation equations for reacting gas mixtures, reaction-kinetic processes that govern combustion rates, the structure of diffusion and premixed flames, and the dynamics of droplet evaporation and combustion. Topics covered include thermochemistry, heat and mass transfer, chemical kinetics, laminar premixed and diffusion flames, droplet burning. Optional topics may include turbulent flames, burning of solids, or complex combustion systems.

MCEG 5316 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, Eckman Row, and other viscous flows such as Boundary Layer Analysis. An introduction to perturbation to theory will also be given.

MCEG 5318 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 5322 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. Lumped, integral, differential, and numerical analysis will be included and a term project will be required.

MCEG 5324 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 5325 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 5326 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 5332 Multiphase Flow and Heat Transfer: 3 semester hours.

Multiphase Flow and Heat Transfer will cover the advanced treatment of fundamental aspects of heat, mass, and momentum transfer in multiphase flow systems. Topics include conservation laws, flows with particles, drops and bubbles, boiling, and condensation.

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.

Mngmnt Info Sys for Executives (EMIS)

Courses

EMIS 5351 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 1110 University Orchestra: 1 semester hour.

An ensemble devoted to the performance of orchestral music.

MUSC 1111 University Band: 1 semester hour.

An ensemble devoted to the performance of band music.

MUSC 1112 University Choir: 1 semester hour.

An ensemble devoted to the performance of choral music.

MUSC 1113 Chamber Vocal Ensemble: 1 semester hour.

The study of Music for vocal ensembles.

Prerequisites: (MUSC 1112 (may be taken concurrently) or MUSC 1121 (may be taken concurrently)) or (MUSC 2112 (may be taken concurrently) or MUSC 2121 (may be taken concurrently)) or (MUSC 3112 (may be taken concurrently) or MUSC 3121 (may be taken concurrently)) or (MUSC 4112 (may be taken concurrently) or MUSC 4121 (may be taken concurrently)).

MUSC 1114 Jazz Band: 1 semester hour.

An ensemble devoted to the study and performance of literature written for jazz band.

MUSC 1115 Brass Ensemble: 1 semester hour.

The study and performance of literature written for brass instruments.

MUSC 1116 Sight Singing and Ear Training I: 1 semester hour.

The development of music reading and aural comprehension. Melodic and harmonic diction.

Co-requisite: MUSC 1311.

MUSC 1117 Sight Singing and Ear Training II: 1 semester hour.

The development of music reading and aural comprehension. Melodic and harmonic diction.

Prerequisites: MUSC 1116 or MUSC 1211.

Co-requisite: MUSC 1312.

MUSC 1118 Chamber Music: 1 semester hour.

The study, rehearsal, and performance of instrumental literature for small ensemble.

MUSC 1119 Percussion Ensemble: 1 semester hour.

The study and performance of literature written for percussion instruments.

MUSC 1136 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 1153 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 1155 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 1156 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 1160 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 1164 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 1165 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 1170 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 1177 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 1178 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 1180 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 1191 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 1236 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 1251 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 1260 Voice: 2 semester hours.

The study of applied voice for performance majors. Freshman Level 1 2, private lesson. Required seminar performances.

MUSC 1261 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 1262 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 1271 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 1281 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 1291 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 1303 Fundamentals of Music: 3 semester hours.

An introduction to the basic materials of music.

MUSC 1306 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 1307 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 1311 Music Theory I: 3 semester hours.

The study of diatonic harmony in tonal music. Keyboard application and aural comprehension of materials are emphasized.

Co-requisite: MUSC 1112.

MUSC 1312 Music Theory II: 3 semester hours.

Continued study of diatonic harmony in tonal music. Keyboard application and aural comprehension of materials are emphasized.

Prerequisites: MUSC 1311 or MUSC 1233.

Co-requisite: MUSC 1117.

MUSC 1321 Fundamentals of Music: 3 semester hours.

An introduction to the basic materials of music.

MUSC 1325 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 1326 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 1341 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 1351 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 1353 Class Piano: 3 semester hours.

Beginning piano studies through group instruction.

MUSC 1354 Class Piano: 3 semester hours.

Beginning piano studies through group instruction.

MUSC 1360 Voice: 3 semester hours.

The study of applied voice for performance majors. Freshman Level 1 2, private lesson. Required seminar performances.

MUSC 1371 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 1381 Woodwinds: 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 1391 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 2112 University Choir: 1 semester hour.

An ensemble devoted to the performance of choral music.

MUSC 2116 Sight Singing III: 1 semester hour.

The development of reading and aural comprehension of music. Melodic and harmonic dictation.

Prerequisites: MUSC 1117 or MUSC 1221.

Co-requisite: MUSC 2311.

MUSC 2117 Sight Singing IV: 1 semester hour.

The development of reading and aural comprehension of music. Melodic and harmonic dictation.

Prerequisites: MUSC 2116 or MUSC 2211.

Co-requisite: MUSC 2312.

MUSC 2119 University Orchestra: 1 semester hour.

An ensemble devoted to the performance of orchestral music.

MUSC 2136 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 1136 or MUSC 1361.

MUSC 2141 String Instruments: 1 semester hour.

The study of stringed instruments through playing experiences in a group.

MUSC 2142 Brass Instruments: 1 semester hour.

The study of brass instruments through playing experiences in a group.

MUSC 2143 Woodwind Instruments: 1 semester hour.

The study of woodwind instruments through playing experiences in a group.

MUSC 2144 Percussion Instruments: 1 semester hour.

The study of percussion instruments through playing experiences in a group.

MUSC 2151 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 1153 or MUSC 1531.

MUSC 2152 Piano: 1 semester hour.

Major and minor scales in two octaves for same 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.

MUSC 2155 Functional Piano III: 1 semester hour.

A continuation of functional keyboard skills for music majors. Not for piano majors.

Prerequisites: (MUSC 1155 or MUSC 1551) and (MUSC 1156 or MUSC 1561).

MUSC 2156 Functional Piano IV: 1 semester hour.

A continuation of functional keyboard skills for music majors. Not for piano majors.

Prerequisites: MUSC 2155 or MUSC 2551.

MUSC 2160 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 2162 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 2165 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 1165 or MUSC 1651.

MUSC 2171 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 or MUSC 1170.

MUSC 2177 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 2178 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 2180 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 or MUSC 1180.

MUSC 2191 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 1191 or MUSC 1911.

MUSC 2236 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 1236 or MUSC 1362.

MUSC 2251 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 1251 or MUSC 1512.

MUSC 2263 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 or MUSC 1260.

MUSC 2271 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 1271 or MUSC 1712.

MUSC 2291 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 1291 or MUSC 1912.

MUSC 2311 Music Theory III: 3 semester hours.

The study of chromatic harmony in tonal music. Keyboard application, analysis, and aural comprehension of materials are emphasized.
Prerequisites: MUSC 1312 or MUSC 1243.
Co-requisite: MUSC 2116.

MUSC 2312 Music Theory IV: 3 semester hours.

The study of chromatic harmony in tonal music. Keyboard application, analysis, and aural comprehension of materials are emphasized.
Prerequisites: MUSC 2311 or MUSC 2213.
Co-requisite: MUSC 2117.

MUSC 2333 Afro-American Music: 3 semester hours.

A survey of historical developments in Afro-American music.

MUSC 2334 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 2363 Voice: 3 semester hours.

The study of applied voice for performance majors. Freshman Level 1 2, private lesson. Required seminar performances.
Prerequisites: MUSC 1361 or MUSC 1613.

MUSC 2371 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 1371 or MUSC 1713.

MUSC 2381 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 1381 or MUSC 1813.

MUSC 2391 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 1391 or MUSC 1913.

MUSC 3111 University Band: 1 semester hour.

An ensemble devoted to the performance of band music.

MUSC 3112 University Choir: 1 semester hour.

An ensemble devoted to the performance of choral music.

MUSC 3116 University Orchestra: 1 semester hour.

An ensemble devoted to the performance of orchestral music.

MUSC 3136 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 2136 or MUSC 2361.

MUSC 3151 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 2151 or MUSC 2511.

MUSC 3165 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 2165 or MUSC 2651.

MUSC 3171 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 2171 or MUSC 2711.

MUSC 3177 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 3178 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 3182 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 2181 or MUSC 2811.

MUSC 3191 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 2191 or MUSC 2911.

MUSC 3220 Analysis of Music: 2 semester hours.

An introduction to the techniques of musical analysis as applied to different forms of music.
Prerequisites: MUSC 2322 or MUSC 2223.

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 or MUSC 3220.

MUSC 3236 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 2236 or MUSC 2362.

MUSC 3246 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 3247 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 3251 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 2251 or MUSC 2512.

MUSC 3261 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 2263 or MUSC 2632.

MUSC 3263 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 3271 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 2271 or MUSC 2712.

MUSC 3281 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.

MUSC 3291 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 2291 or MUSC 2912.

MUSC 3324 Counterpoint: 3 semester hours.

The study of the technique of counterpoint through the writing of original examples.

Prerequisites: MUSC 2312 or MUSC 2223.

MUSC 3331 Music History: 3 semester hours.

A study of musical styles, forms, and developments in western music from antiquity through the baroque period.

Prerequisites: MUSC 1307 or MUSC 2323.

MUSC 3332 Music History: 3 semester hours.

A study of musical styles, forms, and developments in Western music from 1750 to the present.

Prerequisites: MUSC 3331 or MUSC 3313.

MUSC 3360 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 or MUSC 2363.

MUSC 3371 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 2371 or MUSC 2713.

MUSC 3381 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 2381 or MUSC 2813.

MUSC 3391 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 2391 or MUSC 2913.

MUSC 3399 Independent Study: 1-3 semester hour.

Readings, research, applied study, and/or field work on special topics in music.

MUSC 4111 University Band: 1 semester hour.

An ensemble devoted to the performance of band music.

MUSC 4112 University Choir: 1 semester hour.

An ensemble devoted to the performance of choral music.

MUSC 4116 University Orchestra: 1 semester hour.

An ensemble devoted to the performance of orchestral music.

MUSC 4136 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 3136 or MUSC 3361.

MUSC 4151 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 3151 or MUSC 3511.

MUSC 4165 Voice: 1 semester hour.

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.

Prerequisites: MUSC 3165 or MUSC 3651.

MUSC 4171 Brass: 1 semester hour.

Senior 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 3171 or MUSC 3711.

MUSC 4177 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 4178 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 4180 Woodwinds: 1 semester hour.

Senior 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 3811 or MUSC 3182.

MUSC 4191 Percussion: 1 semester hour.

Senior 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 3191 or MUSC 3911.

MUSC 4201 Conducting: 2 semester hours.

The study of basic conducting techniques. A general conducting course.

MUSC 4202 Choral Conducting: 2 semester hours.

The study of choral conducting techniques.

Prerequisites: MUSC 4012 or MUSC 4301.

MUSC 4203 Instrumental Conducting: 2 semester hours.

The study of instrumental conducting techniques.

Prerequisites: MUSC 4201 or MUSC 4012.

MUSC 4221 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 4223 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 2312 or MUSC 2223.

MUSC 4231 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 4236 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 3236 or MUSC 3362.

MUSC 4251 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 3251 or MUSC 3512.

MUSC 4256 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 4261 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 3216 or MUSC 3612.

MUSC 4271 Brass: 2 semester hours.

Senior 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 3271 or MUSC 3712.

MUSC 4281 Woodwinds: 2 semester hours.

Senior 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 3281 or MUSC 3812.

MUSC 4351 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.

MUSC 4360 Voice: 3 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 3361 or MUSC 3613.

MUSC 4363 Vocal Pedagogy: 3 semester hours.

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.

MUSC 4371 Brass: 3 semester hours.

Senior 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 3317 or MUSC 3713.

MUSC 4381 Woodwinds: 3 semester hours.

Senior 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 3381 or MUSC 3813.

MUSC 4391 Percussion: 3 semester hours.

Senior 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 3391 or MUSC 3913.

MUSC 4399 Independent Study: 1-3 semester hour.

Readings, research and/or field work on selected topics.

Natural Resources and Environmental Sciences (NRES)

Courses

NRES 5101 Seminar: 1 semester hour.

Two presentations to be made during the semester; the first presentation will be at the beginning of the semester stating the proposal for master's thesis/ internship and second will be at the end of the semester to state accomplishment.

NRES 5202 Advanced Research Methods in NRES: 2 semester hours.

Literature review, understand the research methods, learn to write proposals, data collection (including in-situ), data analysis and methods, presenting results, learn to present (oral and poster) through a project work, writing report.

NRES 5303 Research Statistics in NRES: 3 semester hours.

Analysis of variance, regression, multivariate analysis, multivariate data, visualization, principal components analysis, multidimensional scaling, factor analysis, cluster analysis, confirmatory factor analysis and structural equation models by statistical computer packages.

Prerequisites: MGMT 3301 or MGMT 3013.

NRES 5305 Advanced GIS and RS for Environmental Management: 3 semester hours.

Advanced GIS and RS components for natural resources and environmental management such as landscape and water resources management. It covers to create, store, manage, query, present and view spatial and non-spatial natural resources and environmental datasets. It includes how accurately and precisely natural resources can be mapped and measured from satellite remote sensing using remote sensing GIS and RS tools. It also includes collecting satellite image, spatial data, to learn its application in industries such as emergency response, meteorology, water resources, land use, agriculture, forest, and urban planning.

Prerequisites: GEOG 2311 or GEOG 2113.

NRES 5310 Economic Analysis of Natural Resource Management: 3 semester hours.

This course focuses on developing an understanding of an economic framework (economic concepts, tools, and techniques) for assessing natural resource management projects, application of the framework to the management of various natural resources.

NRES 5311 Human Dimensions of Natural Resource Management: 3 semester hours.

Human - environment interactions; environmental justice; human values, beliefs, and attitudes regarding the environment; communication and behavior change strategies; landscape perception and attitudes; resource-dependent communities; public involvement; conflict management; and future issues.

NRES 5312 Resources and Environmental Policy: 3 semester hours.

This course focuses on exploration of institutional and policy dimensions of natural resource development, management, allocation, markets and pricing, focusing on their environmental impacts. Emphasis on policy analysis using case studies and empirical findings.

NRES 5322 Environmental Hydrology: 3 semester hours.

Hydrologic cycle, water resources, and society; hydrologic processes; hydrological effects of climatic change; stream processes; open channel flow, hydraulic control structures; soil conservation and sediment budgets; hydrology of forests and wetlands; hydrogeology; human impacts on water resources; fundamentals of remote sensing and GIS for hydrologic application; practical exercises on conducting and reporting hydrologic studies.

Prerequisites: AGRO 4362.

NRES 5323 Hydrologic Processes in Soils: 3 semester hours.

An overview of the basics of soil physical properties, hydrologic processes in soil including water flow, solute movement, and gaseous transport in the variably saturated (saturated/unsaturated) zones, analyze and estimate soil hydraulic properties using public domain packages (RETC and Rosetta), practical and theoretical exercises using HYDRUS-1D.

Prerequisites: AGRO 3364.

NRES 5324 Advanced Watershed Management: 3 semester hours.

Hydrologic cycle, watershed characteristics, precipitation and interception, evapotranspiration, soil water storage, infiltration, runoff process, soil properties, hydrologic methods, wetlands hydrology and management, riparian area management, erosion, tropical watershed management, socioeconomic considerations in watershed management, water quality, and watershed planning and protection. Hand on experience in data handling, presentation, and analysis. Gain experience in critiquing research work and publications.

Prerequisites: NRES 5323.

NRES 5325 Advanced Groundwater Hydrology: 3 semester hours.

Overview of groundwater flow and analytical water flow solutions; theory and practice of groundwater modeling; basic concepts and governing equations of fluid flow in porous media; computational algorithms of solving the equations; model construction, simulation, and calibration using state-of-the-art modeling tools; theory of solute transport and modeling; modeling report, archive, and review; beyond basic modeling concepts.

Prerequisites: NRES 5323.

NRES 6600 Thesis: 6 semester hours.

Independent research work on a specific area in Natural Resources Environmental Sciences under the supervision of a thesis advisor. All course work toward the degree must be completed.

Prerequisites: NRES 5324 and NRES 5325.

Navy ROTC (NAVY)

Courses

NAVY 1301 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 1302 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 2301 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 2302 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 3301 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 2302 or NAVY 2023.

NAVY 3302 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 3310 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 3399 Independent Study: 3 semester hours.

Navy 3000 level course reading and/or field work on selected topics.

NAVY 4301 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 4302 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 2301 or NAVY 2013.

NAVY 4311 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 4399 Independent Study: 3 semester hours.

Navy 4000 level course reading and/or field work on selected topics.

Nursing (NURS)

Courses

NURS 3101 Seminar I-Intro To Prof Prac: 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 3210 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 1301 or HIST 1313) and (HIST 1302 or HIST 1323) and (SOCG 1301 or SOCG 1013).

NURS 3300 Introduction to Pharmacology: 3 semester hours.

This course discusses basic concepts of pharmacology with emphasis on nursing implications.

Prerequisites: (NURS 3416 or NURS 3164) and (NURS 3326 or NURS 3263) and (MATH 1314 or MATH 1113).

NURS 3301 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 1307 or BIOL 1073) and (CHEM 1306 or CHEM 1053) and (CHEM 1106 or CHEM 1051).

NURS 3302 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 1307 or BIOL 1073) and (CHEM 1306 or CHEM 1053) and (CHEM 1106 or CHEM 1051).

NURS 3326 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 2401 or BIOL 1054) and (BIOL 2402 or BIOL 1064) and (BIOL 1307 or BIOL 1073) and (CHEM 1306 or CHEM 1053) and (CHEM 1106 or CHEM 1051).

Co-requisites: NURS 3301, NURS 3302, NURS 3416.

NURS 3327 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 3416 or NURS 3164) and (NURS 3326 or NURS 3263).

Co-requisites: NURS 3300, NURS 3417.

NURS 3332 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 3335 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 3417 or NURS 3174) and (NURS 3300 or NURS 3003).

NURS 3337 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 3338 Nurs 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 3300 or NURS 3003.

NURS 3339 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 3341 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 3416 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 1307 or BIOL 1073) and (BIOL 2401 or BIOL 1054) and (BIOL 2402 or BIOL 1064) and (HUSC 1322 or HUSC 1343).

NURS 3417 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 3300 (may be taken concurrently) or NURS 3003 (may be taken concurrently)) and (NURS 3302 (may be taken concurrently) or NURS 3023 (may be taken concurrently)) and (NURS 3416 or NURS 3164) and (NURS 3326 or NURS 3263) and (NURS 3301 or NURS 3013).

Co-requisite: NURS 3327.

NURS 3428 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 3417 or NURS 3174) and (NURS 3300 or NURS 3003) and (NURS 3327 or NURS 3273).

Co-requisites: NURS 3518, NURS 4301.

NURS 3500 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 2401 or BIOL 1054 and (BIOL 2402 or BIOL 1065).

NURS 3518 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 3417 or NURS 3174) and (NURS 3327 or NURS 3273).

Co-requisite: NURS 3428.

NURS 4203 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 or NURS 4317.

NURS 4226 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 3518 or NURS 3185) and (NURS 3428 or NURS 3284).

Co-requisite: NURS 4316.

NURS 4227 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 4318 or NURS 4183) and (NURS 4316 or NURS 4163) and (NURS 4226 or NURS 4262) and (NURS 4228 or NURS 4282).

Co-requisites: NURS 4229, NURS 4317, NURS 4319.

NURS 4228 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 client with multi-system complex health alterations. Clinical experiences in a variety of settings are used.

Prerequisites: (NURS 3518 or NURS 3185) and (NURS 3428 or NURS 3284).

Co-requisite: NURS 4318.

NURS 4229 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 4318 or NURS 4183) and (NURS 4316 or NURS 4163) and (NURS 4226 or NURS 4262) and (NURS 4228 or NURS 4282).

Co-requisites: NURS 4227, NURS 4317, NURS 4319.

NURS 4300 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 4301 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 3417 or NURS 3174) and (NURS 3300 or NURS 3003) and (NURS 3327 or NURS 3273).

NURS 4316 Mental Health Nursing: 3 semester hours.

This theory course focuses on the application of the nursing process in providing care to clients experiencing psychopathological conditions along the wellness-illness continuum.

Prerequisites: (NURS 3518 or NURS 3185) and (NURS 3428 or NURS 3284).

Co-requisite: NURS 4226.

NURS 4317 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 4316 or NURS 4163) and (NURS 4318 or NURS 4183) and (NURS 4226 or NURS 4262) and (NURS 4228 or NURS 4282).

Co-requisites: NURS 4227, NURS 4229, NURS 4319.

NURS 4318 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 3518 or NURS 3185) and (NURS 3428 or NURS 3284).

Co-requisite: NURS 4228.

NURS 4319 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 4318 or NURS 4183) and (NURS 4316 or NURS 4163) and (NURS 4226 or NURS 4262) and (NURS 4228 or NURS 4282).

Co-requisites: NURS 4227, NURS 4229, NURS 4317.

NURS 4331 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 4335 Advanced Nursing Concepts: 3 semester hours.

This course explores advanced clinical and theoretical issues relating to nursing practice.

Prerequisites: NURS 3518 or NURS 3185 and (NURS 3428 or NURS 3284).

NURS 4337 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 4338 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 4339 Nursing Care of Special Populations: Lesbian, Gay, Bisexual, Transgender, Queer/Questioning (LGBTQ): 3 semester hours.

This course examines application of the nursing process as it relates to lesbian, gay, bisexual, transgender, and queer/questioning (LGBTQ) clients.

This course provides knowledge, awareness, and skills to undergraduate nursing students that will enable them to explore health needs and provide culturally sensitive and holistic nursing care to clients who identify as LGBTQ.

Prerequisites: NURS 3301 or NURS 3013 and (NURS 3326 or NURS 3263) and (NURS 3416 or NURS 3164).

NURS 4340 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 4316 or NURS 4163) and (NURS 4318 or NURS 4183) and (NURS 4226 or NURS 4262) and (NURS 4228 or NURS 4282).

NURS 4399 Independent Study: 1-3 semester hour.

Selected topics are explored through reading, research, and/or field work.

NURS 5204 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 5300 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 5301 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 5302 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 5304 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 5314 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 5301 or NURS 5013.

NURS 5316 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 5317 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 5324 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 5326 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 5300 or NURS 5003 and (NURS 5316 or NURS 5163) and (NURS 5314 or NURS 5133).

Co-requisites: NURS 5204, NURS 5317.

NURS 5330 Program and 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 5301 or NURS 5013) and (NURS 5314 or NURS 5133) and (NURS 5302 or NURS 5023) and (NURS 5304 or NURS 5033) and (NURS 5204 or NURS 5042).

NURS 5331 Instructional Methods and 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 5330 or NURS 5303).

NURS 5332 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 5330 or NURS 5303) and (NURS 5331 or 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 or NURS 5330) and (NURS 5313 or NURS 5331) and (NURS 5323 (may be taken concurrently) or NURS 5332 (may be taken concurrently)).

NURS 5335 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 5330 or NURS 5303) and (NURS 5331 or NURS 5313) and (NURS 5332 or NURS 5323).

NURS 5340 ADM I-Organizational Theory: 3 semester hours.

This course examines organizational concepts, theories, and behavior relevant to Nurse Administration, management and health care 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 5300 or NURS 5003 and (NURS 5301 or NURS 5013) and (NURS 5314 or NURS 5133) and (NURS 5204 or NURS 5042).

NURS 5341 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 5340 or NURS 5403.

NURS 5342 ADM III-Healthcare Economics and Financial Management: 3 semester hours.

This course focuses on economics and financing in health care 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 5340 or NURS 5403) and (NURS 5341 or NURS 5413).

NURS 5344 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 5340 or NURS 5403 and (NURS 5341 or NURS 5413) and (NURS 5342 or NURS 5423).

NURS 5345 Health Informatics I: 3 semester hours.

This course is designed to introduce the foundations 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 5371 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 5376 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 5524 or NURS 5245).

Co-requisite: NURS 5621.

NURS 5377 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 5301 or NURS 5013) and (CNSL 5309 or CNSL 5093) and (NURS 5300 or NURS 5003) and (NURS 5204 or NURS 5042) and (NURS 5371 or NURS 5713) and (NURS 5304 or NURS 5033) and (NURS 5302 or NURS 5023) and (NURS 5133 or NURS 5314).

NURS 5378 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 5301 or NURS 5013 and (NURS 5314 or NURS 5133).

NURS 5380 Thesis Proposal Writing: 3 semester hours.

Concepts of research techniques and designs are explored. A research proposal is developed.

NURS 5390 Thesis: 3 semester hours.

Application of research skills to thoroughly develop thesis on topic approved by advisor.

Prerequisites: NURS 5380 or NURS 5803.

NURS 5398 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 5524 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 5302 or NURS 5023 and (NURS 5304 or NURS 5214).

NURS 5621 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 5316 or NURS 5163) and (NURS 5317 or NURS 5173) and (NURS 5326 or NURS 5263) and (NURS 5524 or NURS 5245).

NURS 5725 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 5524 or NURS 5245.

NURS 7255 DNP Project 1: Project Planning: 2 semester hours.

The goal of this course is to enhance student knowledge health care concepts that result in improvement in practice/systems outcomes and/or cost savings. Through the process of scientific inquiry, critical thinking, and strategic planning skills the DNP student will be able to create a robust project proposal and become an expert in their DNP project topic. This course also provides the opportunity for the inclusion of AACN DNP essentials.

Prerequisites: NURS 7300 or NURS 7003 and (NURS 7301 or NURS 7013) and (NURS 7302 or NURS 7023) and (NURS 7306 or NURS 7033) and (NURS 7305 or NURS 7053).

NURS 7265 DNP Project II: Project Implementation: 2 semester hours.

During this course, project proposal development will be discussed and the actual project proposal will be written. Upon successful completion of the course, the proposal will be approved by the DNP student DNP project committee and move to the IRB.

Prerequisites: NURS 7325 or NURS 7253.

NURS 7275 DNP Project III: Project Dissemination and Evaluation: 2 semester hours.

DNP students will evaluate and plan to disseminate their DNP project with the support of faculty and mentors/preceptors. This course will provide students with experiences in using data analytic software, interprofessional collaboration, leadership skills, and tools to successfully disseminate their project findings.

Prerequisites: NURS 7326 or NURS 7263.

NURS 7300 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 7301 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 7302 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 7304 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 7305 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 7306 Health Care Policy for Advocacy in Health Care: 3 semester hours.

This course 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 7312 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 7314 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 7315 Informatics for Using Telehealth in Nursing Practice: 3 semester hours.

This course focuses on the use of telehealth technologies to deliver 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 7324 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 7325 DNP Project 1: 3 semester hours.

This course is the first 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 7326 DNP Project 2: 3 semester hours.

This course is the second part of a two 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 7325 or NURS 7523.

NURS 7330 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 7338 Practice Residency: 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 7339 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 7338 or NURS 7383.

NURS 7342 Economics in Complex Healthcare: 3 semester hours.

This course introduces the students to the economy of the United States that is essential to the administration of healthcare facilities in the future. Advance nurse administrators will analyze the factors that lead to the involvement of economics in healthcare, focusing on the role, theories, models, and tools utilized. Students compare alternative uses of limited resources and synthesize the consequences of each alternative. Economics provides a mechanism for making system decisions regarding the use limited resources. Understanding the principles and models that drive the economics of healthcare is essential for all decision makers to improve the delivery of cost-effective, high quality care.

Prerequisites: NURS 7301 or NURS 7013 and (NURS 7306 or NURS 7033) and (NURS 7302 or NURS 7023).

NURS 7343 Population Health: 3 semester hours.

This course introduces complex population health issues at the local, regional, national, and global levels. Emphasis is placed on decision-making utilizing limited resources that will impact problems that drive poor health conditions. Evidence-based practice theory is utilized to identify strategies that minimize or eliminate health disparities in diverse populations. Students will focus on health promotion, chronic disease self-management, illness prevention, quality, and safety. Interprofessional strategies will be analyzed for interventions that will inform practice and policy.

Prerequisites: NURS 7301 or NURS 7013 and (NURS 7306 or NURS 7033).

Co-requisite: NURS 7302.

Nutrition (NUTR)

Courses

NUTR 5100 Seminar in Nutrition: 1 semester hour.

This course will place a major emphasis on the current development in nutrition and dietetics. Reading, discussion, reports, case studies and presentations focusing on the professional practice of nutrition and dietetics. Critical thinking activities related to research seminars in human nutrition.

NUTR 5300 Research Methods: 3 semester hours.

This course will teach students how to develop, implement and analyze nutrition and public health research, in order to increase their skills as dietitians/nutritionists, and public health scientists.

Prerequisites: MATH 2003 or MATH 1342 or HUNF 4613 or HUNF 4361.

NUTR 5301 Food and Nutrition Policy: 3 semester hours.

This class will investigate and discuss the roles and interests of federal agencies, state agencies, private/public organizations, and the media relevant to U.S. food and nutrition policy. A comparison and contrast of international perspectives on food and nutrition policies and programs used to support global nutrition and health promotion will be examined. Topics covered will include discussions on healthy diet, healthy food environments, food security, sustainable food systems, and food deserts. Emphasis will be given to the contexts in which policies are developed, interaction of stakeholders, translation of policies into programs, the intended and unintended nutritional impacts, and an assessment of forces hindering or helping the policy implementation.

NUTR 5302 Nutrition Informatics: 3 semester hours.

This course examines how the implementation of electronic health record (EHR) and health information technology (HIT) transformed nutrition delivery documentation, follow up and evaluation. Nutrition Informatics covers the retrieval, organization, storage and use of data for food and nutrition problems and decision making.

NUTR 5303 Biostatistics: 3 semester hours.

This course teaches the statistical methods and principles necessary for understanding and interpreting data used in nutrition, health care, public health, and epidemiology. Topics include descriptive statistics, inferential statistics, graphical data summary, sampling, statistical comparison of groups (t-tests, chi-squared, ANOVA), correlation, and regression. Students will learn via lecture, group discussions, critical reading of published research, and analysis of data using SPSS, SAS, and STATA.

Prerequisites: MATH 2003 or MATH 1342.

NUTR 5310 Nutrition Assessment: 3 semester hours.

This course will examine the types of nutritional assessment systems used for research, clinical evaluations, and community estimates for decision making. The use of the most frequently encountered bio markers, indices and indicators of nutritional status and their interpretation will also be covered.

Prerequisites: HUNF 3603 or HUNF 3360 and (HUNF 3673 or HUNF 3367).

NUTR 5311 Nutrition and Public Health: 3 semester hours.

The course is designed to provide students with understanding and competencies in assessing the factors which influence the nutritional status of the population; in identifying the resources in the community available to address nutrition and health problems; in conducting a community assets and needs assessment; and engaging the community in problem-solving. Also addressed are issues related to the changing nature of general health care and public health nutrition services

Prerequisites: HUNF 3673 or HUNF 3367 and (HUNF 4693 or HUNF 4369).

NUTR 5312 Social and Cultural Influences on Nutrition: 3 semester hours.

This course explores connections between what we eat and who we are through cross-cultural study of how personal and collective identities, social relations, and economic inequalities are formed and maintained via practices of food production, preparation, and consumption.

NUTR 5313 Nutrition & Metabolism I: 3 semester hours.

This course covers nutritional biochemistry; digestion, absorption, transport, function, regulation, and metabolism of macronutrients; relationships between dietary intake, metabolic pathways, and the pathogenesis of health.

NUTR 5314 Nutritional Epidemiology: 3 semester hours.

This course will cover research strategies in nutritional epidemiology and methods of dietary assessment using data on food intake, biochemical indicators of diet, and measures of body composition and size.

NUTR 5315 Global Nutrition: 3 semester hours.

The course explores the impact of nutrition and health disparities internationally resulting from inadequate nutrition throughout the lifecycle. Student will evaluate the international health and nutrition organizations, policies and interventions. The increased role of the dietitian in creating and implementing international interventions and affecting public health policy will be explored.

NUTR 5320 Food Nutrition & Communication: 3 semester hours.

The course explores current trends and the use of social media as an effective tool in dietetics practice. The course gives the students an opportunity to practice food styling and writing a supportive article for possible submission to Today's Dietitian.

NUTR 5322 Nutrition Education & Counseling: 3 semester hours.

Students preparing for careers in nutrition and dietetics are expected to gain competency for professional practice in a wide range of disciplines and be able to translate nutrition sciences effectively into plain language for people who want to change their eating behaviors, lifestyle, and energy expenditure to improve their health. This course will increase and refine the student's pre-professional experience in helping people change their eating habits for improving their health and reducing the risk of chronic diseases.

NUTR 5323 Nutrition & Metabolism II: 3 semester hours.

This course covers nutritional biochemistry; digestion, absorption, transport, function, regulation, and metabolism of micronutrients; relationships between dietary intake, metabolic pathways, and the pathogenesis of health.

Prerequisites: NUTR 5313.

NUTR 5326 Capstone Project: 3 semester hours.

Independent final paper exploring a topic of interest, emerging from a specific area in Nutritional Sciences under the supervision of a faculty advisor.

NUTR 5633 Advanced Practicum in Dietetics: 6 semester hours.

Preplanned experience at the professional level in dietetic administration, food service management, clinical and therapeutic nutrition and community and public health nutrition.

NUTR 6306 Thesis: 3 semester hours.

Independent research work on a specific area in Nutritional Sciences under the supervision of a thesis advisor.

Philosophy (PHIL)

Courses

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 or ENGL 1301.

PHIL 2306 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 or ENGL 1301.

PHIL 2307 African American Philosophy: 3 semester hours.

This course is a survey of the philosophical writings of some of the most important African American thinkers from the nineteenth to twenty-first century. Its aim is to gain familiarity with the works of influential African American philosophers while also learning to engage critically and responsibly with philosophical texts.

Prerequisites: ENGL 1123 or ENGL 1301.

PHIL 2309 Ethics of Cybersecurity: 3 semester hours.

This course provides a comprehensive examination of ethics as applied to the field of cybersecurity. Students will learn ethical frameworks and principles that they will apply to diverse issues within and related to cybersecurity. Specific topics to which ethical tools will be applied include but are not limited to value conflicts in cybersecurity systems, especially between system administrators and users; privacy, censorship, and filtering; intellectual property rights and digital rights management; special issues concerning the Internet of Things (IoT); accessibility and social justice. Special emphasis will be placed on issues of social justice pertaining to race, gender, ability, and socio-economic variables.

PHIL 3304 Philosophy of Science: 3 semester hours.

This course will introduce and explore conceptual, methodological, and epistemological issues about science: concept formation, explanation, prediction, confirmation, and theory construction; the status of unobservable; metaphysical presuppositions and implications of science; semantics of scientific language; illustrations from special sciences.

Prerequisites: ENGL 1123 or ENGL 1301 and (PHIL 2303).

PHIL 3305 Philosophy of Law: 3 semester hours.

Examination of the main fields of law, including criminal law, torts, constitutional law, contracts, property law, jurisprudence and international law. The focus will be on the underlying philosophical, moral and jurisprudential rationales for these; and classic texts and landmark cases will be read, to illuminate these fields. Students will also acquire legal reasoning and critical thinking skills, to help them distinguish stronger from weaker legal arguments and rulings.

Prerequisites: ENGL 1123 or ENGL 1301 and (PHIL 2023 or PHIL 2306).

PHIL 3306 Bioethics: 3 semester hours.

Provides grounding in basic theories, principles, and historical cases concerning bioethics.

Prerequisites: ENGL 1123 or ENGL 1301 and (PHIL 2023 or PHIL 2306).

PHIL 3307 Environmental Ethics: 3 semester hours.

This course is an interdisciplinary examination and assessment of the leading global thesis on environmental ethics, climate change, and sustainability. The aim of the course is to gain familiarity with contemporary global environmental issues while also learning to engage critically and responsibly with arguments concerning ethical action and environmental policy.

Prerequisites: PHIL 2023 or PHIL 2306.

PHIL 3308 Global Social Justice and Ethics: 3 semester hours.

This course is an interdisciplinary examination and assessment of the leading global theories on human rights, social justice, and ethics. The aim of the course is to gain familiarity with contemporary global challenges while also learning to engage critically and responsibly with arguments concerning ethical action and policy to address them.

Prerequisites: PHIL 2023 or PHIL 2306.

Physical Education (PHED)

Courses

PHED 5313 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 5314 Sociology 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 5330 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 5350 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 5399 Independent Study: 1-3 semester hour.

Readings, research and/or field work on selected topics.

Physical Science (PHSC)

Courses

PHSC 1112 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 1315 Physical Science I: 3 semester hours.

Emphasizes insight into basic physical science principles and practices. Topics include physics, chemistry, and earth science aspect dealing with the atmosphere, hydrosphere, and lithosphere.

PHSC 1317 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 1315 or PHSC 1123.

PHSC 3308 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 3322 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 4101 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 4301 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 1315 or PHSC 1123.

Co-requisite: PHSC 4101.

PHSC 4399 Independent Study: 1-3 semester hour.

Readings, research, and/or field work on selected topics.

PHSC 4402 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.

Physics (PHYS)

Courses

PHYS 1101 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 1301 (may be taken concurrently) or PHYS 2113 (may be taken concurrently).

PHYS 1102 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 1301 or PHYS 2113) and (PHYS 1302 (may be taken concurrently) or PHYS 2123 (may be taken concurrently)).

PHYS 1301 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 1314 or MATH 1113) or (MATH 1511 or MATH 1115) or (MATH 1316 or MATH 1123).

PHYS 1302 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 1301 or PHYS 2113) or (PHYS 2325 or PHYS 2513).

PHYS 2125 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 2325 (may be taken concurrently) or PHYS 2513 (may be taken concurrently).

PHYS 2126 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 2326 (may be taken concurrently) or PHYS 2523 (may be taken concurrently).

PHYS 2325 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 2413 or MATH 1124.

PHYS 2326 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 2325 or PHYS 2513) and (MATH 2414 or MATH 2024).

PHYS 3310 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 2326 or PHYS 2523.

PHYS 3312 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 2326 or PHYS 2523.

PHYS 3316 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 2326 or PHYS 2523.

PHYS 3318 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 2326 or PHYS 2523.

PHYS 3324 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 2326 or PHYS 2523.

PHYS 4191 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 3318 or PHYS 3183.

PHYS 4192 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 4191 or PHYS 4911.

PHYS 4302 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 2326 or PHYS 2523.

PHYS 4306 Thermodynamics and Statistical Mechanics: 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: MATH 3014 or MATH 3401.

PHYS 4310 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 2326 or PHYS 2523.

PHYS 4316 Special Topics PHYS: 3 semester hours.

Selected current and emerging topics in Physics. Courses may be repeated for credit when topics vary.

PHYS 4399 Independent Study: 1-3 semester hour.

Readings, research, and/or field work on selected topics.

Political Science (POSC)

Courses

POSC 2304 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 2305 or POSC 1113 and (POSC 2306 or POSC 1123).

POSC 2305 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 2306 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 2311 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 2312 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 2314 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 2321 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 2341 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 2342 Data Analysis in Political Science: 3 semester hours.

The course covers the use of software applications and statistical procedures used to analyze data in the study of political science.

Prerequisites: POSC 2304 or POSC 2133.

POSC 2350 Global Issues: 3 semester hours.

Critical evaluation of selected current issues and problems in world politics facing the global community, such as war, terrorism,, the environment , hunger, energy, population, migration, human rights , and trade.

POSC 2353 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 2354 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 3312 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, Boding, Hobbes, Locke, Montesquieu, Jefferson, Rousseau, Mills, Hegel, and Marx.

POSC 3314 Election Law and Voting Rights: 3 semester hours.

A thorough examination of election laws at the federal, state, and local levels and how they guide the conduct of elections by officials and voters alike.

POSC 3321 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.

POSC 3331 Policial 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 2305 or POSC 1113 and (POSC 2306 or POSC 1123).

POSC 3341 Gandhi and King: 3 semester hours.

Historical examination of Gandhian and Kingian nonviolent political resistance in the context of the indian independence movement and the American civil rights movement.

Prerequisites: POSC 2305 or POSC 1113 and (HIST 1302 or HIST 1323).

POSC 3342 Political Resistance and Social Change: 3 semester hours.

Examines instances in which ordinary citizens forge ways to address the political system when "normal" channels are unavailable to them. Investigates social movements and how ordinarily quiescent masses attempt to impact the political process.

POSC 3351 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.

POSC 3353 U.S. Foreign Policy: 3 semester hours.

This is a study of the American foreign policy, including the objectives, capabilities and formulation process.

POSC 3354 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.

POSC 3355 African Politics: 3 semester hours.

Explores the political history and development of African states.

POSC 3359 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 3399 Independent Study: 1-3 semester hour.

Readings, research, and/or field-work on selected topics. Prerequisite: consent of advisor.

POSC 4310 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.

POSC 4311 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 2305 or POSC 1113 and (POSC 2306 or POSC 1123).

POSC 4313 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.

POSC 4314 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.

POSC 4319 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.

POSC 4320 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 4321 Seminar in Political Science: 3 semester hours.

This course is devoted to intensive reading, writing, research, and discussion focusing on selected topics.

POSC 4324 Race, Gender and Public Policy: 3 semester hours.

Examines how racial and gender groups, broadly defined, both influence and are influenced by, American public policy.

Prerequisites: POSC 2305 or POSC 1113.

POSC 4399 Independent Study: 3 semester hours.

Readings, research, and/or field-work on selected topics. Prerequisite: consent of advisor.

POSC 4615 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 onsite intern supervisor.

Psychology (PSYC)

Courses

PSYC 0134 Math Skills Statistics: 1 semester hour.

This course will enhance the student's performance in Fundamentals of Statistics. It improves skills in solving linear equations; graphing and interpreting linear models; and reading and applying formulas. It develops an understanding of numeracy and the real number system, including conversions between and calculations with fractions, decimals and percentages, necessary for successfully completing the Fundamental of Statistics course. A co-requisite course for those students who have not passed TSIA Math, to be taken in conjunction with Fundamental of Statistics.

Co-requisite: PSYC 2317.

PSYC 1141 Careers in Psychology: 1 semester hour.

This course is designed to provide students with knowledge of different careers one can pursue in psychology.

PSYC 2301 General Psychology: 3 semester hours.

Introduction to fundamental psychological concepts derived from the application of scientific method to the study of behavior.

PSYC 2308 Child Psychology: 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 2301 or PSYC 1113.

PSYC 2316 Psychology of 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 2317 Statistical Methods in Psychology: 3 semester hours.

Introduces basic statistical concepts and the relevance of statistics in the every day 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 3322 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 3324 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 2317 or PSYC 2613.

PSYC 3325 Clinical Psychology: 3 semester hours.

A survey of counseling and interview techniques and use of psychological test findings in support of counseling procedures.

Prerequisites: PSYC 1113 or PSYC 2301.

PSYC 3331 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 2301 or PSYC 1113.

PSYC 3332 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 2301 or PSYC 1113.

PSYC 3341 Drugs and Behavior: 3 semester hours.

This course covers the basic principles of psychopharmacology: what drugs are and how they influence psychological phenomena. Various forms of drug use and abuse are examined. Upon completion of this course, students will be able to understand how and why drugs are used for treatment for psychopathological and neuropsychological conditions; mechanisms of addiction; tolerance and abuse; the social recreational and religious context; and the history of substance abuse.

Prerequisites: PSYC 2301 or PSYC 1113.

PSYC 3343 Experimental Psychology: 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 2317 or PSYC 2613.

PSYC 3354 Hist Sys Psyc: 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 3360 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 3361 Stat For Psyc 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 2317 or PSYC 2613.

PSYC 3362 Community Psychology: 3 semester hours.

This course provides an introduction to the field of community psychology. Community psychologists study person-environment interactions and the various ways individuals navigate between different social context, e.g. schools, neighborhood, community, and society; and, community psychologists employ a variety of methodological approaches to understand many of the social issues facing communities today such as juvenile violence, homelessness, HIV-AIDS, domestic violence, etc.

Prerequisites: PSYC 2301 or PSYC 1113.

PSYC 3364 Positive Psychology: 3 semester hours.

Positive psychology encompasses the study of positive experiences, positive character strengths, positive relationships, and the institutions and practices that facilitate their development. Positive experiences include the mental states of flow and mindfulness and emotions about the present (pleasure, contentment, laughter), past (e.g., nostalgia, satisfaction, pride), and future (e.g., hope, optimism). The positive character traits include wisdom, courage, compassion, love, humanity, justice, temperance, self-efficacy, resilience, grit, creativity, and spirituality/transcendence. The classification of these virtues is explored. Positive relationships include the factors that enhance meaning and well-being among couples, family, friends, co-workers, and the community. Positive institutions are exemplified by positive education, positive work environments, healthy families, humane leadership, and the development of civic virtues. This course also reviews the history of positive psychology and the contributions this new field has made to several traditional research areas in psychology. Consideration will be given to conflicting viewpoints and their respective empirical support, including the benefits of balancing positive with negative emotions, the measurement and development of happiness, and the implications of deliberately attempting to increase it. Throughout the course we will also engage in experiential learning and practical exercises to increase well-being, which will inform our theoretical and empirical understanding of important questions in positive psychology.

Prerequisites: PSYC 2301 or PSYC 1113.

PSYC 3370 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 3372 Psychology and Law: 3 semester hours.

This course is designed to provide an in-depth review of psychology and law with an emphasis on how psychological science has informed various practices in the legal system and the role of psychologists in the legal system. Topics of inquiry include family law, mental health evaluations, legal decision-making, the insanity defense, the death penalty, civil commitment, police investigations, interrogations and confessions, and eyewitness testimony.

Prerequisites: PSYC 1113 or PSYC 2301.

PSYC 3391 Indust Org Psyc: 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 4141 Psychology Internship Supervision: 1 semester hour.

The Internship Course aims to provide students with an opportunity to acquire field experience with emphasis on psychological constructs and methodologies across diverse settings such as mental health services, community organizations, criminal justice venues, and business enterprises.

Prerequisites: (PSYC 2301 or PSYC 1113) and (PSYC 2316 or PSYC 2513) and (PSYC 2317 or PSYC 2613) and (PSYC 3343 or PSYC 3433).

Co-requisite: PSYC 3322.

PSYC 4322 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.

Prerequisites: PSYC 1113 or PSYC 2301.

PSYC 4323 Psychology of Religion: 3 semester hours.

This course is designed to provide an in-depth review of psychology-of-religion theory and research. The required text provides a state-of-the-art review of classic theory and contemporary empirical research.

Prerequisites: PSYC 2301 or PSYC 1113.

PSYC 4325 Clinical Psychology: 3 semester hours.

A survey of counseling and interview techniques and use of psychological test findings in support of counseling procedures.

PSYC 4333 Special Topics in Psychology: 3 semester hours.

The study of specialized areas in Psychology. Topics vary by semester. Course may be repeated for credit when topic varies.

PSYC 4341 Psychology Internship: 1-3 semester hour.

The Internship Course aims to provide students with an opportunity to acquire field experience with emphasis on psychological constructs and methodologies across diverse settings such as mental health services, community organizations, criminal justice venues, and business enterprises.

Prerequisites: (PSYC 2301 or PSYC 1113) and (PSYC 2316 or PSYC 2513) and (PSYC 2317 or PSYC 2613) and (PSYC 3343 or PSYC 3433).

Co-requisite: PSYC 3322.

PSYC 4343 Multicultural Psychology: 3 semester hours.

This course is an introduction to the principles, theories, and applications of multiculturalism. Students will be required to examine one's own sense of self and others' identity, beliefs and assumptions, and behaviors. Theories, research, and skills will be explored so that students can acquire the necessary multicultural competencies for effective work with children and adolescents from diverse backgrounds (i.e., culture, race, ethnicity, class, gender) in multicultural environments (i.e., public schools, community organizations).

Prerequisites: PSYC 2301 or PSYC 1113.

PSYC 4344 Research Methods: 3 semester hours.

Work in designing and carrying on research projects both in laboratory and in more life-like situations. The use and understanding of appropriate statistical procedures are emphasized.

Prerequisites: PSYC 2317 or PSYC 2613.

PSYC 4351 Cognitive Psychology: 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 2301 or PSYC 1113.

Co-requisite: PSYC 4361.

PSYC 4352 Emotion and Motivation: 3 semester hours.

This course is designed to provide an in-depth review of the psychology of emotion and motivation with an emphasis on theoretical and physiological approaches to understanding emotion and motivation through the applications of psychological science. Topics include the origin of motivations and emotions, structures associated in the brain, functions of emotions and motivations, and current directions.

Prerequisites: PSYC 1113 or PSYC 2301.

PSYC 4353 Psychology of Sex and Gender: 3 semester hours.

This course is designed to provide students with knowledge about the origins and psychological effects of gender differences and sexual orientation.

Prerequisites: PSYC 2301 or PSYC 1113.

PSYC 4355 Social Cognition: 3 semester hours.

This course is designed to provide students with knowledge about important research from a social cognition perspective.

Prerequisites: PSYC 2301 or PSYC 1113.

PSYC 4361 Physiological Psychology: 3 semester hours.

Neurophysiologic correlates and systems underlying behavior. Physiological processes underlying sensory-motor activity, motivation and learning.

PSYC 4363 Sensation Perception: 3 semester hours.

Examines the sensory processes, the relationship between physical stimuli and sensory/perceptual experience, and perceptual phenomena.

Prerequisites: PSYC 4361 or PSYC 4613.

PSYC 4364 Stereotypes and Prejudice: 3 semester hours.

This course is designed to provide students with knowledge about the origins and psychological effects of stereotypes, prejudice, and discrimination. Students will also learn about interventions that reduce stereotyping and prejudice.

Prerequisites: PSYC 2301 or PSYC 1113.

PSYC 4373 Cross-Cultural Psychology: 3 semester hours.

This course is designed to provide students with knowledge about the effect of culture on psychological phenomenon. Topics include differences between individualistic and collectivistic cultures, as well as differences between culture of honor, dignity, and face.

Prerequisites: PSYC 2301 or PSYC 1113.

PSYC 4382 Reading and Research: 3 semester hours.

Offered when demand warrants. Seminar or projects on various topics in psychology.

PSYC 4383 African American Psychology: 3 semester hours.

African-American Psychology is designed to introduce advanced undergraduate students to the research, theories, and paradigms developed to understand the attitudes, behaviors, psychosocial and educational realities of African-American. In order to gain a more accurate understanding of the psychosocial realities of African-Americans it is essential to understand intersectionality.

Prerequisites: PSYC 2301 or PSYC 1113.

PSYC 4384 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 2317 or PSYC 2613) and (PSYC 3343 or PSYC 3433) and (PSYC 3361 or PSYC 3613) and (PSYC 4344 or PSYC 4443).

PSYC 4391 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 2301 or PSYC 1113.

PSYC 4393 Chicano/Latinx Psychology: 3 semester hours.

This course will familiarize the student with the personal, social, cultural and institutional forces that affect Hispanics. The course will explore the sociopolitical issues that affect Chicano/Latinx and how they affect their psychological well-being.

Prerequisites: PSYC 2301 or PSYC 1113.

PSYC 4399 Independent Study: 1-3 semester hour.

Reading, research and/or field work on selected topics.

PSYC 4444 Research Methods: 4 semester hours.

Work in designing and carrying on research projects both in laboratory and in more life-like situations. The use and understanding of appropriate statistical procedures are emphasized.

Prerequisites: (PSYC 1113 or PSYC 2301) and (PSYC 2613 or PSYC 2317).

PSYC 4484 Senior Paper: 4 semester hours.

An in-depth study of a specific research topic in psychology. An oral presentation is a requirement of the course.

Prerequisites: PSYC 1113 or PSYC 2301 and (PSYC 2613 or PSYC 2317) and (PSYC 4444).

Public Health (PHLT)

Courses

PHLT 1306 Environmental Health: 3 semester hours.

This course is designed to introduce students to examine human-environment interactions in modern society, including: environmental problems related to life in technologically advanced societies, renewable resources, and the effects of various human activities and enterprises on environments.

PHLT 1310 Foundation to Public Health: 3 semester hours.

This course introduces the student to the health education profession. Roles and responsibilities of health educators in a variety of occupational settings are described.

PHLT 1320 Principles of Health Promotion and Disease Prevention: 3 semester hours.

This course covers essential content in addressing social and behavioral science concepts for application across public health domains. Material will address theories and applications in public health. The course will focus on three major approaches to public health problems: Psychosocial. The psychosocial unit will include exposure to multiple behavioral theories and application of theory in understanding etiology and planning interventions. Community. The community unit will include a review of community change concepts and theories and exposure to community organizing techniques. Economics and Policy. The economics and policy unit will address such functions as supply and demand, opportunity costs, costs versus benefits, and intended vs. unintended consequences in examining the role of economics and policy change in decision-making about public health.

PHLT 2325 Biostatistics: 3 semester hours.

The purpose of the course is to teach fundamental concepts and techniques of descriptive and inferential statistics with applications in health care, medicine, public health, and epidemiology. Basic statistics, including probability, descriptive statistics, inference for means and proportions, and regression methods are presented. The analytic methods and applications will be linked to topics including health promotion, epidemiology, and program evaluation.

PHLT 2351 Advanced Health Promotion and Disease Prevention: 3 semester hours.

This course examines personal, social, and environmental factors that influence health-related behaviors as well as the role of individuals, groups, institutions, social structures, and policy in encouraging and discouraging healthy behaviors. The course focuses on behavior change theories and the application of these theories to health promotion.

PHLT 2383 Multicultural Health Issues: 3 semester hours.

The course is designed to address health issues and problems that various ethnic groups face in the United States. Cultural differences in health behaviors, health care access, and promotion and prevention programs are emphasized.

PHLT 3300 Spirituality and Health: 3 semester hours.

This course is to introduce students to the relationship between spirituality, religion, and health in children and adults. Family beliefs and values will be discussed, as well as their role in treatment and healing.

PHLT 3305 Public and Community Health: 3 semester hours.

This course focuses 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.

PHLT 3306 Technology in Health Communication and Technology in Health: 3 semester hours.

The interdisciplinary course introduces students to current tools, technology and applications in the healthcare systems; it allows for critique and analyze of various management programs and technology systems currently available to health care professionals.

PHLT 3308 Women and Men Health: 3 semester hours.

This course will explore health issues affecting both males and females. It is designed to empower males and females to make informed decisions about their health and health care.

PHLT 3310 Scientific Writing: 3 semester hours.

This course aims to demystify the writing process and teach the fundamentals of effective scientific writing. Instruction will focus primarily on the process of writing and publishing scientific manuscripts but grant writing will also be addressed. The course will be presented in two segments: Part (1) teaches students how to write effectively, concisely, and clearly and part (2) takes them through the preparation of an actual scientific manuscript or grant.

Prerequisites: PHLT 1310.

PHLT 3311 Seminar: 3 semester hours.

This course introduces a variety of topic, issues, and skills important to the profession of health. Students will be exposed to health certifications and professional organizations representing the field, and promotion resources.

PHLT 3312 Health Policy & Health Systems: 3 semester hours.

This course presents an introduction to health policy, i.e., the various ways in which the government plays a role in health and in the provision of health care. Health policies can have a profound effect on quality of life. Accessibility, cost, quality of health care; safety of food, water, and environment; the right to make decisions about our health; these issues are vitally tied to health policies.

Prerequisites: PHLT 1310.

PHLT 3313 Public Health Administration: 3 semester hours.

This course is an overview of issues pertaining to local health administration. Emphasis is placed on public sector organizational structures and the challenges they face in changing local and national economies with broad political dimensions. This course will examine the organization and management within public health settings including system influences, leadership, communication, organization behavior, team development, organization design, evaluation, productivity, performance improvement. It will provide an introduction to policy issues in healthcare including state and federal roles in healthcare, the policy process and various healthcare policy and help you explore values and American political processes as they influence health policy.

Prerequisites: PHLT 1310.

PHLT 3314 Public Health Budget & Personnel: 3 semester hours.

This course is an overview of issues pertaining to local health administration. Emphasis is placed on public sector organizational structures and the challenges they face in changing local and national economies with broad political dimensions. This course will examine the organization and management within public health settings including system influences, leadership, communication, organization behavior, team development, organization design, evaluation, productivity, performance improvement. It will provide an introduction to policy issues in healthcare including state and federal roles in healthcare, the policy process and various healthcare policy and help you explore values and American political processes as they influence health policy.

Prerequisites: PHLT 2325.

PHLT 3320 Determinants of Health and Health Disparities: 3 semester hours.

This course examines how social, economic, environmental, and cultural and lifestyle factors contribute to differences in morbidity and mortality among racial and ethnic minorities. Students will also examine social determinants of population health.

Prerequisites: PHLT 1310.

PHLT 3324 Epidemiology: 3 semester hours.

This course provides an introduction to the fundamental definitions, terminology, concepts, methods, and critical thinking used in epidemiology. It will help student to identify and describe patterns of disease occurrence using scientific approach.

Prerequisites: PHLT 1310 or MATH 1103 and (ENGL 1123 or ENGL 1301).

PHLT 3327 Human Behavior Theory and Practice: 3 semester hours.

The purpose of this course is to provide a thorough discussion of the determinants of health-related behavior, health behavior theory (HBT), and how theory can be utilized in health education and behavior research and practice. Emphasis will be placed on how various theories of health behavior are used to design, implement, and evaluate behavior change and health education interventions. This course focuses on the presentation and critical analysis of the role of theory in health promotion and eliciting behavior change, the description of different theories being utilized in behavior change interventions and the application and evaluation of these theories in practice. One course, however, cannot possibly cover all theories relevant to health behavior, health education, and health promotion. The intent of this course, therefore, is not to provide definitive coverage of theory, but rather to introduce and prepare health education and behavior graduate students for continued work using select health behavior theories throughout their professional careers.

Prerequisites: PHLT 1306.

PHLT 3341 Geography of Health/GIS Mapping: 3 semester hours.

This course offers a critical geographic perspective to human health issues, examining disease distributions, how changing relationships between people and their environments (natural, built, and social environments) influence health, and different approaches to the study of health in geography. It also examines how GIS is used throughout the health care industry and public health. Covers environmental health, disease surveillance, and health services research. Students critically review current literature and gain hands-on experience with GIS software.

Prerequisites: PHLT 1306 and PHLT 2325.

PHLT 3342 Nutrition and Disease: 3 semester hours.

This course covers issues in public health related to how nutrition is used for chronic disease prevention. The process of effectively and efficiently identifying, reading, and synthesizing existing sources of reliable information on particular diet disease associations will be covered extensively as will applying this knowledge in a public health context. We will focus on the relation of nutrition to obesity, diabetes, coronary heart disease, hypertension, cancer, addiction-related health problems, mental illness, food-borne and water-borne diseases, and selected additional health outcomes of public health significance in the U.S.

Prerequisites: PHLT 2351.

PHLT 4302 Global Health: 3 semester hours.

This course examines major global health challenges, program and policies. Students will be introduced to a diversity of health and disease. The course will explore global health priorities such as poverty, health inequality, health system reforms, major global initiatives for disease prevention and health promotion.

Prerequisites: PHLT 1310.

PHLT 4307 Community Planning and Assessment: 3 semester hours.

This course 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. (Student will plan and implement a community health program.)

PHLT 4308 Program and Evaluation and Problem Solving: 3 semester hours.

This course focuses on the evaluation of psycho-social-cultural health problems and influences on human behavior and health education strategies and outcome measurement.

PHLT 4313 Research Methodology: 3 semester hours.

This course provides students with fundamental principles of research methodologies relevant to public health research. We will review a range of methodologies, including randomized controlled trials, observational studies, and mixed-method approaches. We will develop enhanced capacity to understand and critically appraise data from scientific studies.

PHLT 4389 Internship Capstone: 3 semester hours.

An internship will consist of meaningful work experience in the public health field. This context of experiential learning is designed for professional development as course content is integrated into work experience. Students also significantly contribute to area organizations through an internship.

Prerequisites: PHLT 1310 and PHLT 3305.

First Year Experience (PVEX)

Courses

PVEX 1000 Freshman Experience Course: 0 semester hours.

This course is designed to help first-year students transition and adjust to the University, develop an understanding of the rich history of the University, develop a better understanding of the learning process, acquire essential academic skills, and, begin the major/career exploration process. The course also introduces the students to the mission, values and constituencies of comprehensive University.

PVEX 3100 Transfer Experience Course: 1 semester hour.

This course will support students transition into the University environment, connect students with other transfer students, teach students the rich history of the University, as well as provide learning strategies for academic and personal success in college. This course will also introduce the students to the myriad of support services and activities available at the University.

Reading (RDNG)

Courses

RDNG 0010 Reading Basics Lab: 0 semester hours.

This is a basic reading course designed to improve students' overall basic reading and critical reading skills. Emphasis is on reading comprehension, vocabulary development, study techniques, and critical thinking skills. Classroom instruction is enhanced by required lab-based activities.

RDNG 3360 Evaluation of Reading Performance: 3 semester hours.

Application of basic measurement and evaluation techniques to reading performance.

RDNG 3361 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 3362 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 3364 Methods of Teaching Elementary Reading: 3 semester hours.

Analysis of various approaches and methods used in teaching reading in the elementary grades.

RDNG 4363 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 4364 Children's Literature: 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 4365 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 4367 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 5361 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 5362 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 5363 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 5364 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 5366 Clinical Experiences in Reading: 3 semester hours.

Case study analysis, seminars, and field experiences in school classrooms.

RDNG 5367 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.

Supply Chain Management (SCMG)

Courses

SCMG 4334 Purchase Management: 3 semester hours.

This course focuses on the overall management of the purchasing function of the organization including: uninterrupted flow of quality materials and service, inventory optimization, developing and maintaining supplier relationships and negotiating supply contracts to improve organizational competitiveness.

Prerequisites: MGMT 3310 or MGMT 3103 and (MRKT 3310 or MRKT 3103).

SCMG 4335 Logistics Management: 3 semester hours.

This course focuses on the fundamental concepts of organizing flow and storage of goods in order to meet customers' demand. Topics include demand management, supply management, inventory decision making, transportation, storage management and logistics information systems.

Prerequisites: ((MGMT 3310 or MGMT 3103) or (MRKT 3310 or MRKT 3103)) and (MGMT 3301 or MGMT 3013).

SCMG 4336 Quality Management: 3 semester hours.

The course exposes the students to the behavioral, technological, and statistical concepts applied to the field of Total Quality Management. Product and service quality, productivity and continuous improvement are discussed.

Prerequisites: ((MGMT 3310 or MGMT 3103) or (MRKT 3310 or MRKT 3103)) and (MGMT 3301 or MGMT 3013).

Social Work (SOWK)

Courses

SOWK 2313 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 2317 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 2361 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 3311 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 3312 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 3311 or SOWK 3113.

SOWK 3313 Human Behavior and the Social Environment I: 3 semester hours.

Dynamics of human behavior and effects of the social environment on individual development. Process of human development adaptation from infancy through adolescence with an examination of developmental states, transitions and problems inclusive of the person in the environment.

SOWK 3314 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 3313 or SOWK 3133.

SOWK 3315 Social Work with At-Risk Juveniles: 3 semester hours.

Emphasizes generalist approach to delinquency prevention, and intervention within the correctional system.

SOWK 3316 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 3321 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 4312 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.

SOWK 4313 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 4312 or SOWK 4123.

SOWK 4314 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 4315 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 4314 or SOWK 4143.

SOWK 4318 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.

SOWK 4334 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 4335 Intervention with Addicted Family: 3 semester hours.

Integration of theory and codependency, mental and physical abuse, and other obsessive behaviors.

SOWK 4617 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 4318.

SOWK 5205 Social Work Research I: 2 semester hours.

This 8-week foundation course is designed to help students gain an understanding of and appreciation for the use of research as a tool for professional evidence-based practice. Students are introduced to the concepts and skills underlying a systematic approach to social work research, including basic research terminology, the scientific method in social work, the value, and ethics of research in social work, problem formulation and conceptualization, measurement, research designs to evaluate programs and practice, sampling, data collection methods and analytic techniques, and preparation and use of research reports. Particular attention is directed to social work research that addresses the social needs of people of color and populations at risk in American society. The emphasis in the course is on equipping students with the research knowledge and skills needed to engage in the evidence-based practice process at all levels of social work practice.

SOWK 5206 Social Work Research II: 2 semester hours.

Building on Research I, this course engages students in the application of scientific research methods to assess social work practice. Students participate in guided research projects which require a review of evidence-based research, data collection and analysis, reporting and implications for social work practice.

Prerequisites: SOWK 5205.

SOWK 5207 Diversity, Oppression, and Inclusion: 2 semester hours.**SOWK 5215 Social Work Policy: 2 semester hours.**

This first required course in the Social Policy sequence examines the history and development of social welfare policy and services in American society, with a major focus on the evolution and contributions of professional social work to this development. Students are exposed to the major curriculum themes within the MSW Program, such as adherence to social work values and ethics, scientific inquiry, empowerment, diversity and social justice. Emphasis is placed on the dynamic relationships between social welfare policy and services and the modern/post-industrial society in the context of social work values and ethics and pursuit of economic, political, and social justice.

SOWK 5300 Human Behavior in the Social Environment: 3 semester hours.

This course is an introductory course that involves the study and exploration of human behavior, and provides a framework for understanding individuals, families, groups, organizations, and communities within the context of interacting physical and social environments. Human behavior is seen as varied and complex, arising from the interplay of several factors (biological, psychological, social, and cultural) which can enhance or impede the social functioning of individuals and social institutions. Traditional and alternative theories and paradigms will be utilized to provide the foundation necessary for organizing and understanding human behavior in the social environment. Special emphasis is given to human diversity, the impact of social and economic forces on individuals and social systems, and populations at risk.

SOWK 5301 Social Work Practice with Individuals and Families: 3 semester hours.

This foundation course in the practice area focuses on the integration of theory, methods and skills as they apply to practice with individuals and families. The foundation of the course is social work values and the ethical decision-making process, as illuminated by the NASW Code of Ethics. The course provides an indepth examination of the helping process within the context of a systems/developmental framework. This course encompasses engaging clients in an appropriate working relationship, communication skills, identifying issues, problems, needs, resources, and assets, and planning for service delivery.

SOWK 5302 Social Work Practice With Groups, Organizations, and Communities: 3 semester hours.

This course builds upon Social Work Practice I by deepening students' knowledge of the generalist social work perspective in the application of theory and practice methods for effective and ethical service delivery to diverse individuals, families, groups, organizations and communities in conjunction with field education.

Prerequisites: SOWK 5308.

SOWK 5303 Clinical Assessment & Diagnosis: 3 semester hours.

This course covers the incidence, etiology, and assessment of health and mental health issues with children, adolescents, adults, and families using a bio-psycho-social-spiritual and cultural approach. Students will master the essential knowledge, understanding and application of the Diagnostic and Statistical Manual of Mental Disorders (DSM-V) and International Classification of Diseases (ICD) behavioral health classification systems for differential assessment and diagnosis of mental disorders, mental illness and related medical issues in clinical social work practice. Psychopharmacology is also covered.

SOWK 5304 Clinical Practice in Medical and Behavioral Healthcare: 3 semester hours.

Methods of clinical social work practice in health care are studied within the framework of the bio-psycho-social -spiritual perspective. This course expands upon the foundation content of the Human Behavior in the Social Environment courses and Practice sequences and Field Education courses. The components of bio-psycho-social -spiritual assessments and interventions are expanded to include understanding of medical concerns, physical function, medical treatment, and the socio-cultural meanings ascribed to illness. Focus also will be directed to issues such as strategies for coping with illness, self-concept, identity formation, and the impact of illness on family relationships.

SOWK 5305 Public Health and Mental Health Policy & Analysis: 3 semester hours.

The purpose of this course is to introduce students to the public health system and policy issues confronting public health practitioners. The course presents an overview of public health policy interventions, the theoretical motivations for undertaking them, the influence of the political, bureaucratic, and social environments in which policy decisions are made, and the population health consequences of such decisions. A key aspect of the course is to develop a framework for analyzing public health policies. Along with conceptual discussions, the course includes case studies of current public health policy issues.

SOWK 5306 Advanced Africentric Theory and Interventions in Healthcare: 3 semester hours.

This course builds upon the specialization core courses and engages students in gaining comprehensive knowledge, awareness, and skills for Africentric social work practice in the medical and behavioral health fields. Students will learn about the history of oppression and resilience of African-descent individuals from a bio-psycho-social-cultural-spiritual perspective. The emphasis will be on understanding how Africentric theory dovetails with traditional helping theories and the components of best practices and evidence-based Africentric interventions to address health and mental health disparities for African-descent populations in the US.

SOWK 5307 Advanced Clinical Practice in Medical and Behavioral Healthcare: 3 semester hours.

The objective of this course is to introduce social work students to the direct practice of integrated behavioral health in primary care. Students will become knowledgeable of the roles of behavioral health providers working in primary care settings, theories and models of care, and cross-cultural issues. They will develop skills in engagement, assessment, intervention planning and implementation, and practice evaluation. Because the populations served in primary care settings span the spectrum of severity in both the physical and behavioral health dimensions, students will develop competencies in engaging and supporting patients across a range of health conditions.

Prerequisites: SOWK 5304.

SOWK 5308 Social Work Practicum and Seminar I: 3 semester hours.

This foundation practicum first course facilitates student application of classroom learning in a social service agency. Students will demonstrate their practice competency in all nine CSWE areas of social work practice competency. In this internship students will gain a generalist perspective of social work practice and prepare to move into an advanced area of practice concentration. This course prepares students to apply practice theories, models, and ethical principles in a specific agency setting. Emphasis is placed on promoting competence through strength-based, culturally competent, generalist practice.

SOWK 5309 Global Social Work and Medical and Behavioral Healthcare: 3 semester hours.

The elective course covers advanced theoretical and practical approaches to international Social Work and Medical and Behavioral Health. Particular cultures and specific global medical and behavioral health problems are examined in-depth to promote student acquisition of an international worldview for global human change based on social work values and research-informed practice.

SOWK 5310 Trauma-Informed Practice in Healthcare Settings: 3 semester hours.

This elective course examines the integration and infusion of the meaning of trauma into social work practice to recognize its prevalence, realize its impact, and respond sensitively and competently.

SOWK 5351 Social Work Practicum and Seminar II: 3 semester hours.

This foundation practicum first course facilitates student application of classroom learning in a social service agency. Students will demonstrate their practice competency in all nine CSWE areas of social work practice competency. In this internship students will gain a generalist perspective of social work practice and prepare to move into an advanced area of practice concentration. This course prepares students to apply practice theories, models, and ethical principles in a specific agency setting. Emphasis is placed on promoting competence through strength-based, culturally competent, generalist practice.

Prerequisites: SOWK 5308.

SOWK 5601 Social Work Practicum and Seminar III: 6 semester hours.

Building on Field Instruction I and II, this 6-credit hour course is a supervised practicum within an organization that provides clinical social work services and includes 300 clock hours of field internship.

Prerequisites: SOWK 5308 and SOWK 5351.

SOWK 5602 Social Work Practicum and Seminar IV: 6 semester hours.

Building on Field Instruction I, II, and III, this 6-credit hour course is a supervised practicum within an organization that provides clinical social work services, including 300 clock hours of internship.

Prerequisites: SOWK 5308 and SOWK 5351 and SOWK 5601.

SOWK 6303 Clinical Assessment & Diagnosis: 3 semester hours.

This course covers the incidence, etiology, and assessment of health and mental health issues with children, adolescents, adults, and families using a bio-psycho-social-spiritual and cultural approach. Students will master the essential knowledge, understanding and application of the Diagnostic and Statistical Manual of Mental Disorders (DSM-V) and International Classification of Diseases (ICD) behavioral health classification systems for differential assessment and diagnosis of mental disorders, mental illness and related medical issues in clinical social work practice. Psychopharmacology is also covered.

SOWK 6304 Clinical Practice in Medical and Behavioral Healthcare: 3 semester hours.

Methods of clinical social work practice in health care are studied within the framework of the bio-psycho-social-spiritual perspective. This course expands upon the foundation content of the Human Behavior in the Social Environment courses and Practice sequences and Field Education courses. The components of bio-psycho-social-spiritual assessments and interventions are expanded to include understanding of medical concerns, physical function, medical treatment, and the socio-cultural meanings ascribed to illness. Focus also will be directed to issues such as strategies for coping with illness, self-concept, identity formation, and the impact of illness on family relationships.

SOWK 6305 Public Health and Mental Health Policy & Analysis: 3 semester hours.

Methods of clinical social work practice in health care are studied within the framework of the bio-psycho-social -spiritual perspective. This course expands upon the foundation content of the Human Behavior in the Social Environment courses and Practice sequences and Field Education courses. The components of bio-psycho-social -spiritual assessments and interventions are expanded to include understanding of medical concerns, physical function, medical treatment, and the socio-cultural meanings ascribed to illness. Focus also will be directed to issues such as strategies for coping with illness, self-concept, identity formation, and the impact of illness on family relationships.

SOWK 6306 Advanced Africentric Theory and Interventions in Healthcare: 3 semester hours.

The purpose of this course is to introduce students to the public health system and policy issues confronting public health practitioners. The course presents an overview of public health policy interventions, the theoretical motivations for undertaking them, the influence of the political, bureaucratic, and social environments in which policy decisions are made, and the population health consequences of such decisions. A key aspect of the course is to develop a framework for analyzing public health policies. Along with conceptual discussions, the course includes case studies of current public health policy issues.

SOWK 6307 Advanced Clinical Practice in Medical and Behavioral Healthcare: 3 semester hours.

The objective of this course is to introduce social work students to the direct practice of integrated behavioral health in primary care. Students will become knowledgeable of the roles of behavioral health providers working in primary care settings, theories and models of care, and cross-cultural issues. They will develop skills in engagement, assessment, intervention planning and implementation, and practice evaluation. Because the populations served in primary care settings span the spectrum of severity in both the physical and behavioral health dimensions, students will develop competencies in engaging and supporting patients across a range of health conditions.

Prerequisites: SOWK 6304.

SOWK 6309 Global Social Work and Medical and Behavioral Healthcare: 3 semester hours.

The elective course covers advanced theoretical and practical approaches to international Social Work and Medical and Behavioral Health. Particular cultures and specific global medical and behavioral health problems are examined in-depth to promote student acquisition of an international worldview for global human change based on social work values and research-informed practice.

SOWK 6310 Trauma-Informed Practice in Healthcare Settings: 3 semester hours.

This elective course examines the integration and infusion of the meaning of trauma into social work practice to recognize its prevalence, realize its impact, and respond sensitively and competently.

SOWK 6601 Social Work Practicum and Seminar III: 6 semester hours.

Building on Field Instruction I and II, this 6-credit hour course is a supervised practicum within an organization that provides clinical social work services and includes 300 clock hours of field internship.

Prerequisites: SOWK 5308 and SOWK 5351.

SOWK 6602 Social Work Practicum and Seminar IV: 6 semester hours.

Building on Field Instruction I, II, and III, this 6-credit hour course is a supervised practicum within an organization that provides clinical social work services, including 300 clock hours of internship.

Prerequisites: SOWK 5308 and SOWK 5351 and SOWK 5601.

Sociology (SOCG)

Courses

SOCG 1301 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 1306 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 2301 Sociology of Marriage and Family: 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 2302 Black Families: 3 semester hours.

Students will be introduced to the diverse institutional, cultural, and historical issues relating to the past and present life circumstances of Black American families. Some comparisons will be made with families in Africa and the Diaspora.

SOCG 2306 Gender and Sexuality: 3 semester hours.

An exploration of how socializing agents such as the family, media, sports, school, work and religion aid in the development of gender roles, gender identity and gender inequality.

SOCG 2319 Sociology of Minorities: 3 semester hours.

Sociological study of traditional minorities (race, ethnicity, and religion) and new minorities (gender, sexual orientation and disability).

SOCG 2326 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 3300 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 1314 or MATH 1332 or MATH 1113 or MATH 1103.

SOCG 3301 Urban and Rural 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 3303 Social Inequality: 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 3305 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 3306 Sociology of Drug Use and Abuse: 3 semester hours.

Historical and contemporary analysis of patterns of use and abuse of legal and non-legal drugs in the U.S. and other parts of the world. Social-psychological impact of abuse, dependence, and addiction. Evaluation of consequences and treatment.

SOCG 3307 Conformity, Deviance, and Identity: 3 semester hours.

Analyzes social conformity, societal sanctions, and social control in relationship to the Sociological study of deviance, and identity. Applies theoretical explanations of deviance and identity to explore the intersection of social control, race/ethnicity, social class, and gender.

SOCG 3310 Sociological Research Methods: 3 semester hours.

Introduction to methods of sociological research including experiments, survey research, secondary analysis, and observation.

SOCG 3315 African American Urban Life: 3 semester hours.

This course examines African Americans as agents in shaping the urban experience in the United States. Examples will be drawn from communities such as Harlem, NY, the Central Avenue districts of Los Angeles, Chicago's south Side and the Auburn Avenue districts of Atlanta, as well as others. Prerequisites: SOCG 1013 or SOCG 1301.

SOCG 3320 Sociological Theory: 3 semester hours.

Critical survey of major sociological theories from classical to contemporary schools of thought.

SOCG 3322 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.

SOCG 4301 Religions in the African Diaspora: 3 semester hours.

Examines the historical progression of traditional African spirituality and cultures across various regions beyond Africa; and historical trends that have shaped the repression of African Diasporic religious life within its social context. Topics within the course will include the following: religious syncretism, black theology, black secularism, freedom movements, repatriation and the role of religious institutions in containing civil society.

SOCG 4302 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.

SOCG 4303 Introduction to Black Sociology: 3 semester hours.

A survey of theoretical paradigms and social structures and their impact on primarily black people with generalization to broader human behavior.

SOCG 4304 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.

SOCG 4307 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.

SOCG 4309 Race Relations: 3 semester hours.

Wide range explorations 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 4310 Sociology of Entrepreneurship: 3 semester hours.

This course takes a sociological approach to explore entrepreneurship and organizations at various from levels of analysis. This course examines concepts of organizational structure, capital including human, cultural, and financial; the navigation of legitimacy, uncertainty and risk; as well as the role of race, class, gender, discrimination, and racism within organizations.

SOCG 4314 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.

SOCG 4315 Clinical and Applied Sociology: 3 semester hours.

Applies sociology concepts, theory, and methods to analyze and engage challenges facing business, government, non-governmental organizations, and groups. Students will apply a sociological approach to research, identify social problems, and propose solutions in hands-on projects to local community organizations and business to propose solutions.

Prerequisites: SOCG 3310.

SOCG 4376 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.

SOCG 4378 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.

SOCG 4399 Independent Study: 3 semester hours.

Readings, research, and/or field work on selected topics.

SOCG 5312 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.

SOCG 5321 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.

SOCG 5322 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 5324 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 5326 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 5328 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 Crime and Society: 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 5335 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 5341 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, Goffman, Coser, Dahrendorf, Marcuse and Habermas and their application to current research.

Prerequisites: SOCG 5321 or SOCG 5213.

SOCG 5342 Social Inequality: 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 5344 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 5345 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 5346 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 5352 Black Family: 3 semester hours.

This course is designed to explore the Black family from a number of different perspectives. We will research and discuss how institutions affect family structure, relationships, socioeconomic conditions, health and other factors. Different theoretical frameworks will be used to explain the historical and contemporary status and experiences of Black families in the United States.

SOCG 5355 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 5361 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 5362 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 5321 or SOCG 5213.

SOCG 5372 Black Sociology: 3 semester hours.

Examines the contributions of black sociological theorists, public intellectuals, and methodologists including but not limited to selected topics such as Black Marxism, the Atlanta Laboratory School, Postcolonial Studies, Black Feminism, and Critical Race Theory providing the foundation for contemporary theory.

SOCG 5382 Graduate Capstone: 3 semester hours.

Serves as the culminating experience for non-thesis MA students. This course will allow graduate students to develop writing and presentation skills, and integrate past learning.

SOCG 5383 Media Studies: 3 semester hours.

Explores how various avenues of the media impact human behavior with a focus on theory and themes such as: race, gender, class, culture, technology and globalization.

SOCG 5384 Urban Field Research: 3 semester hours.

The course is designed to provide theoretical foundations for and guided practical experience in conducting field research in urban settings.

SOCG 5399 Independent Study: 3 semester hours.

Readings, research, and/or field work on selected topics.

Spanish (SPAN)

Courses

SPAN 1301 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 1302 Elementary Spanish II: 3 semester hours.

Continuation of acquisition of language skills and culture introduced in Elementary Spanish 1.

SPAN 2311 Intermediate Spanish I: 3 semester hours.

Continuation of acquisition of language skills and culture presented in Elementary Spanish I and II.

SPAN 2312 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 2315 Spanish for Healthcare Professions: 3 semester hours.

Practice in listening, speaking, reading and writing skills in Spanish to acquire elementary medical vocabulary and expressions. Research work on selected topics.

Prerequisites: SPAN 1302 or SPAN 1023.

SPAN 2317 Spanish for Law Enforcement: 3 semester hours.

Practice in listening, speaking, reading and writing skills in Spanish to acquire elementary law enforcement vocabulary and basic communication.

Prerequisites: SPAN 1302 or SPAN 1023.

SPAN 2320 Spanish Conversation: 3 semester hours.

Practice in oral conversation. Guided conversation involving the vocabulary of everyday situations.

Prerequisites: SPAN 1302 or SPAN 1023.

SPAN 2321 Spanish Composition: 3 semester hours.

Practice in written composition. Salient principles of grammar and syntax in written work.

Prerequisites: SPAN 1302 or SPAN 1023.

SPAN 3302 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 2312 or SPAN 2023.

SPAN 3307 Spanish-American Literature II: 3 semester hours.

A survey of Spanish-American literature since the Modernista movement.

Prerequisites: SPAN 2312 or SPAN 2023.

SPAN 3309 Hispanic Civilization and Culture I: 3 semester hours.

Main currents of the intellectual, political, and economic history of Spain.

Prerequisites: SPAN 2312 or SPAN 2023.

SPAN 3330 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 2312 or SPAN 2023.

SPAN 3340 Latin American Detective Fiction: 3 semester hours.

Representative selections of detective fiction of Latin America from the twentieth century to the present. It enables students to examine detective fiction within its social, cultural, and historical contexts.

Prerequisites: SPAN 2023 or SPAN 2312.

SPAN 4300 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 2312 or SPAN 2023.

SPAN 4306 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 2312 or SPAN 2023 and (SPAN 3320 or SPAN 3203) and (SPAN 3321 or SPAN 3213).

SPAN 4343 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 2312 or SPAN 2023.

SPAN 4399 Independent Study: 3 semester hours.

Readings, research, and/or field work on selected topics.

Prerequisites: SPAN 2312 or SPAN 2023.

Special Education (SPED)

Courses

SPED 3300 Introduction to Exceptional Children: 3 semester hours.

Basic theories and concepts related to identification and classification of exceptional children and youth.

SPED 3301 Psychology of Cognitive Disorders: 3 semester hours.

An introduction to the psychology of mental retardation in children and youth.

Prerequisites: SPED 3300 or SPED 3003.

SPED 4300 Psychology of Behavior Disorders: 3 semester hours.

An introduction to various theoretical aspects of children with mild emotional problem to severe behavior disturbances.

SPED 4301 Language and Communication Problems: 3 semester hours.

An overview of particular communication problems as they relate to the verbal, nonverbal, expressive, and receptive language skills of the exceptional learner.

SPED 4302 Psychometrics for Exceptional Children and Youth: 3 semester hours.

An overview of Legal implications of the assessment of children exhibiting the characteristics of behavior disorders, learning disabilities, and/ or intellectual disabilities.

SPED 4303 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.

SPED 4311 Methods for Teaching Exceptional Children: 3 semester hours.

The study of: instructional strategies for teaching children and youth with intellectual, behavioral, and/or learning disabilities; organization of special classes; and curriculum adaptations. Includes 15 clock hours of field-based experiences with exceptional learners.

Prerequisites: SPED 3300 or SPED 3003.

SPED 4312 Practicum: 3 semester hours.

A field-based experiences involving exceptional learners in the classroom. Activities include 15 clock hours of classroom observation, concepts, and skills associated with referrals of classroom problems, tests, and evaluation procedures.

Prerequisites: SPED 3300 or SPED 3003.

Co-requisite: SPED 4311.

SPED 5320 5320 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 5321 Survey of the Exceptional Learner: 3 semester hours.

An in-depth study of the various types of exceptional learners and their educational needs.

SPED 5322 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 5323 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 5324 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 5326 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 5321 or SPED 5213.

SPED 5327 Learning Theory: 3 semester hours.

An in-depth study of the various learning theories and an analysis of systematic approaches to learning.

SPED 5328 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 5334 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 5335 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 5321 or SPED 5213 and (SPED 5326 or SPED 5263) and (SPED 5328 or SPED 5283).

Sport Management (SPMT)

Courses

SPMT 1302 Foundations of Sport Management: 3 semester hours.

This course studies the intricacies involved in the management and leadership of sport programs in health, kinesiology and sports management. Specific management techniques, administration techniques and theories will be studied to provide the foundation for effective leadership and supervision of sport programs. This course will also provide a study of administrative considerations of various sport programs, including aims, policies, principles, staffing, scheduling, finance, facilities and equipment, maintenance, legal considerations, risk management, publicity, and program evaluation.

SPMT 2310 Sport Governance: 3 semester hours.

This course is designed as an in-depth study of major sport governing agencies. Specifically, the students will study the organizational structure, constitutions, policies, procedures, and membership requirements of sport agencies at the state, national, and international levels. The course will also provide an introduction to sport governance, managerial activities related to governance, strategic management and policy development, ethics in sport organizations, scholastic sport, amateur sport in the community, campus recreation, intercollegiate athletics, major games in amateur sport, Olympic Sport, Paralympics sport, North American Professional sport, international professional sport, and the future of sport governance, among other topics of interest relating to sport governance.

Prerequisites: SPMT 1302.

SPMT 4311 Legal Aspects of Sport: 3 semester hours.

This course reviews legal foundations and issues specific to recreation and sport management. A theoretical approach to litigation with emphases on risk management, the safety of participants, and the appropriate ethical behavior of service providers will be introduced. Opportunities for practical experience will be provided.

Supervision (SUPV)

Courses

SUPV 5311 Principles of Supervision: 3 semester hours.

Principles, practices and problems of the supervisory program; includes analysis of current research in the field.

Prerequisites: ADMN 5307 or ADMN 5073.

Real Estate (REST)

Courses

REST 3311 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 2302 or ACCT 2123) and (ECON 2302 or ECON 2113).

REST 3322 Real Estate Finance: 3 semester hours.

The course introduces various aspects of real estate finance; covers all market sectors and funding sources with concentration on residential lending and secondary market for first mortgage loans; satisfies educational licensing requirement as prescribed by the Texas Real Estate License Act.

Prerequisites: REST 3311 or REST 3113.

REST 3325 Real Estate Investment: 3 semester hours.

The course provides an introduction to real estate investments including analysis of real estate investment alternatives; feasibility and site analysis; tax considerations; income and expense analysis; discounted cash flow analysis; and profitability measurement.

Prerequisites: REST 3311 or REST 3113.

REST 3399 Independent Study in Real Estate: 3 semester hours.

Supervised reading, research, and/or field work on selected topics in real estate area.

Prerequisites: REST 3311 or REST 3113.

Doctorate of Business Administration (EDBA)

Courses

EDBA 7311 Research and Academic Writing: 3 semester hours.

This course is designed to assess various research methodologies commonly adopted by social researchers in conducting business research from the perspective of their research problems, strategies, domains, and technologies. In addition, students learn about the effective dissemination of their research findings in a written paper and presentation.

EDBA 7312 Applied Statistical Analysis I: 3 semester hours.

This course focuses on enabling students to choose relevant statistical methods and implement them correctly in the course of collecting data and generating statistical inference. Topics include sampling, estimation, hypothesis testing, simple and multiple regression models, residual analysis, and others. Students gain proficiency in using statistics software, such as SPSS, SAS and others.

EDBA 7313 Qualitative Research Methods: 3 semester hours.

This course is designed to help students develop an understanding of qualitative research methods and designs. Through presentation of scholarly readings and research projects, the course explores a variety of qualitative research approaches, taking into account issues of epistemology (ways of knowing), methodology (ways of examining), and representation (ways of writing and reporting). In addition, the course provides a survey of the methodological literature on qualitative research methods paired with appropriate article exemplars. The course also covers a variety of different research strategies including case study, qualitative data collection and analysis techniques ethnography. In a nutshell, the course develops skills in designing, evaluating, and understanding qualitative research methods.

EDBA 7314 Applied Statistical Analysis II: 3 semester hours.

This course explores advanced analytical techniques for data mining, analysis, and inference, focusing on multivariate statistical analysis. It covers various topics, including multivariate data exploration, multiple regression analysis, principal component analysis (PCA), cluster analysis, data classification, and structural equation modeling (SEM). Students work with data analytics software, such as SAS, R, and KNIME, and advance their understanding of analytical methods for dissertation research.

EDBA 7317 Dissertation Mini-Proposal I: 3 semester hours.

This course introduces theories and research methods in business to assist students in generating several research issues they have encountered in business practice. Feasibility of these issues is evaluated from the perspective of relevant theories and research methods.

EDBA 7318 Dissertation Mini-Proposal II: 3 semester hours.

This course requires students to develop an applied research proposal by expanding their research prospectus in the prerequisite course, Foundations of Applied Research Prospectus. A student chooses his/her primary advisor. The proposal includes several necessary components, which will be part of a future dissertation, such as the identification of the research issue, expanded literature review, hypothesis development, and appropriate research methodology in consultation with the primary advisor. The research proposal will be presented before the course instructor, the primary advisor and colleagues.

EDBA 7321 Applied Research in Accounting: 3 semester hours.

This course discusses selected major topics in accounting, such as the role of accounting rules in capital markets, firm valuation, agency theory, behavior research in management accounting, and others.

EDBA 7322 Finance Theory and Applications: 3 semester hours.

This course provides theoretical and empirical foundation in finance, with a special emphasis on corporate finance. Topics include empirical research methods in finance, capital structure, payout policy, internal capital markets, financial risk management, financial distress and bankruptcy, and others.

EDBA 7323 Information Systems Research: 3 semester hours.

This doctoral seminar is designed to provide students with a broad introduction to key management, organizational, and behavioral research issues, theoretical perspectives, and challenges in contemporary topics of virtual environments, digitization, digital systems, and information technology.

EDBA 7324 Organizational Leadership Theory and Applications: 3 semester hours.

The course will present a comprehensive overview of leadership and management theories that have emerged over the years by enabling students to analyze major theories and models of leadership. Leadership would be discussed at individual, team, and organizational levels.

EDBA 7325 Strategic Business Analysis: 3 semester hours.

This course adopts an integrated approach to understand complex management strategies, which determine future organizational success. Students in the course are exposed to the broad range of academic and professional articles from the theoretical to the empirical and from the classic to the current.

EDBA 7326 Business Analytics and Supply Chain: 3 semester hours.

This course is designed to provide in-depth knowledge in data analytics, decision making process models for effective supply chain management. Topics include probability and statistics, data visualization, regression, data mining, optimization models, Monte Carlo simulation, and decision analysis. Considering the complexity of supply chain problems, a generalized research framework, case analysis – problem description – quantitative modeling – computational analysis – client presentation, will be used for business case studies. The knowledge learned in this class should help you identify opportunities in which business analytics can be used to improve supply chain performance.

EDBA 7327 Marketing Theory and Applications: 3 semester hours.

The course will go over topics related to marketing's role within firms, customer relationship management, marketing strategies, and impact of globalization and new media. Also, the course synthesizes extant academic findings with better marketing management practices.

EDBA 7328 Global Economic Systems and Issues: 3 semester hours.

This course will explore various global economic issues and their potential to affect management decision making. The course materials will focus on development and growth, international trade and finance, and micro and macro perspectives of the firm relating to the global economy.

EDBA 8691 Dissertation I: 6 semester hours.

The dissertation phase of the DBA program takes place in three successive semesters for doctoral students to expand and execute a research proposal that was developed in Design of Applied Research Proposal. In Dissertation I, students make necessary changes to the research proposal based on the feedback from the dissertation committee (a primary and two secondary advisors) with respect to the significance of a problem to the business practice and knowledge advancement, supporting theories and concepts, the relevancy of methodology, the availability of data, and appropriate analytical skills to proceed with research topics. Students should develop viable research hypotheses or questions.

EDBA 8692 Dissertation II: 6 semester hours.

Students conduct empirical investigations with respect to the research hypotheses or questions proposed with assistance from dissertation committee members regarding the sampling and data collection procedures, analyses of data, statistical inferences, and others.

Prerequisites: EDBA 8691.

EDBA 8693 Dissertation III: 6 semester hours.

Students produce preliminary drafts of their dissertations and receive feedback from their committee members and make a formal presentation of their dissertation in front of their committee members, faculty and students. If a student is not able to complete and defend his/her dissertation by the end of Dissertation III, he/she will continue to enroll in this course every regular semester. Prerequisite: EDBA 8692

Prerequisites: EDBA 8692.

Catalog Support

Prairie View A&M University publishes a University Online Catalog once a year. The catalog is located at <https://catalog.pvamu.edu/> and contains currently approved curriculum items approved by the University curriculum process. The process includes approvals at the college level, Undergraduate and Graduate Councils, Core Curriculum Committee (if applicable), Provost, and President (if applicable). Catalogs will publish online each spring prior to fall registration.

Catalog Production Team

Oversight of catalog production comes from the Office of Academic Affairs (AA) and Enrollment Management (EM). Working with academic units and identified Points of Contact, the catalog will require editing and publishing according to the production schedule outlined below:

Point of Contact (POC) – Identified faculty or staff member within the college, school, and/or administrative unit who will be responsible for editing academic information within the academic catalog. POCs will work within their respective college to update approved curricular and policy changes.

College Approver (CA) - College administrator responsible for final approval of all college edits. CAs are academic deans, assistant/associate deans, department heads, or faculty members designated by the academic dean.

CAT Administrators (CAT ADM) – Academic Affairs and Enrollment Management team members who are responsible for the oversight of catalog production.

For additional questions, please contact Academic Affairs at aacurriculum@pvamu.edu.

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Prairie View A&M University
CourseLeaf Administrator

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