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Catalog Home

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1333 W. Washington
Stephenville, TX United States 76402

The 2026-2027 catalog can be viewed by navigating the links at the top or to the right. Click here for PDF.

Tarleton State University: An Overview

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Tarleton State University: An Overview

The Tarleton Heritage

Since its creation, Tarleton State University, a public coeducational institution, has provided a broad-based education. Established by a $100,000 bequest from John Tarleton, an Erath County pioneer, John Tarleton College opened in 1899 as a private preparatory school and college for the youth of the surrounding rural region. During the next decade, students could earn a baccalaureate degree. In 1908, declining enrollment and inadequate funding caused college officials to reorganize the institution to a two-year degree program. This revised curriculum emphasized a liberal arts education, while retaining the two-year preparatory division. Again in 1916, Tarleton experienced financial difficulties; consequently, the Texas Legislature in 1917 approved the college as a branch of Texas Agricultural and Mechanical College, which would later become The Texas A&M University System. John Tarleton Agricultural College, as renamed by the Legislature, retained the two-year degree as well as the preparatory program and specialized curricula in agriculture, home economics, and military science.

To meet the needs of a changing constituency, Tarleton has adjusted and enriched its curriculum since the 1920s. Accredited as a junior college by the Southern Association of Colleges and Schools Commission on Colleges in 1926, Tarleton gradually redeveloped a liberal arts education. Then in 1949, the Legislature changed the name of the school to Tarleton State College, and in 1953 the preparatory division was discontinued, reflecting the increased access to public schools throughout the state. By a 1959 act of the Legislature, Tarleton once again became a four-year degree-granting institution, with the first class graduating in 1963. Accredited as a senior college in 1966, Tarleton initiated many new programs, including graduate courses in 1970. Because Tarleton offered a broad liberal arts education within undergraduate and graduate degrees, the Texas Legislature recognized the institution as a university in 1973, and changed the name officially to Tarleton State University. In 2003, a doctoral degree in Educational Leadership was initiated. In 2019, a Doctor of Philosophy in Criminal Justice was initiated (pending approval by the Southern Association of Colleges and Schools Commission on Colleges).

Celebrating our 125th year, Tarleton has grown from a small private college into a thriving state university, serving over 21,000 students. In 1999, Tarleton established the first university system center in Texas, providing public, upper-level academic programs for the citizens of central Texas. This entity was called the Tarleton University System Center – Central Texas and was located in Killeen. On September 1, 2009, the system center became an independent university – Texas A&M University – Central Texas.

Degree programs and degree completion programs are offered on the main campus in Stephenville, in Fort Worth at Tarleton's campus located on the Chisholm Trail Parkway, the Terrell School of Medical Laboratory Sciences in the downtown medical district, and on the Tarrant County College – Trinity River Campus. In addition, degree programs are offered in Waco at the McLennan Community College University Center, and through the Tarleton Online campus. Tarleton also is a participating member in the Texas A&M University System – RELLIS Academic Alliance in Bryan, Additional sites include the W. K. Gordon Museum and Research Center in Thurber. These locations have enabled Tarleton to meet educational demands from across the state. Over our one hundred twenty-five years Throughout its first one hundred years, Tarleton has never lost the commitment to excellence that was the vision of its founder, John Tarleton.

Mission Statement

Tarleton State University, a founding member of The Texas A&M University System, transforms generations by inspiring discovery, leadership, and service through educational excellence.

Vision:

Tarleton will be the premier comprehensive university in the nation, with a keen focus on student success, teaching, and research.

Core Values:

- Excellence
- Integrity
- Respect

Strategic Goals

Student Opportunity & Success

- Support the well-being and success of all students, consistently outpacing our peers in engagement and achievement rates, with a strong commitment to enhancing opportunity, access, and affordability.
- Optimize the university's educational impact through recruitment, strategic offerings and flexible learning formats, particularly in graduate and professional programs.
- Promote student socio-economic mobility and gainful employment through market-driven pathways, streamlined program navigation, and career readiness.

Academic Distinction

- Leverage high-impact teaching and learning practices, technology, and quality instructional design of all courses to provide a transformational and future-focused educational experience.
- Adapt and expand nationally-recognized academic programs, schools and colleges through prestigious accreditation, program review, and benchmarking against aspirational institutions.
- Continue our future-focused development of Tarleton Fort Worth and expansion of academic programs and support at all outreach campuses to provide educational attainment opportunities to meet the growing marketplace needs of the region and state.

Global, Community & First-Gen Initiatives

- Leverage the university's culture of connection and access to be a national comprehensive first-choice, first-generation premier destination-HSI.
- Promote success opportunities and global pathways to enhance academic, financial and wellness support for all learners, and development opportunities for all employees.
- Integrate educational experiences for students, faculty and staff to increase understanding of perspectives that enhance intercultural competence.

Research, Innovation, & Economic Impact

- Enhance university resources and invest in sustainable research infrastructure to mobilize faculty and student research, scholarship, and creative activities and support personnel in the process of securing and administering research funds to reach Carnegie's *Very High Research Activity* status by 2030.

- Become a leader in higher education, industry, and government partnerships, innovation, and entrepreneurial strategies that advance community engagement and economic development.

Institutional Prominence

- Foster a thriving employee experience through meaningful communication, competitive compensation, interprofessional collaboration, and an ongoing commitment to growth and wellness.
- Ensure fiscal sustainability through strategic resource management, alternative revenue generation, and rigorous fundraising.
- Elevate the institutional profile by capitalizing on national visibility and distinction.

Enrollment and Faculty

Over 18,000 students attend Tarleton State University. Students from approximately 229 Texas counties, 47 US states and territories, and 32 foreign countries comprise the student body. More than 400 full-time faculty members are devoted to academic excellence and the personal development of each student. The student-faculty ratio is 23:1.

Main (Stephenville) Campus

One of the most striking features of Tarleton State University is the spacious 170-acre campus located in the heart of Stephenville, a city of approximately 21,800 people, only 65 miles southwest of Fort Worth. Featuring malls, open space, and beautifully-landscaped grounds, the campus is dominated by majestic oak and pecan trees, which create a warm atmosphere for living and learning. The architectural integrity of aged red brick buildings is maintained campus wide. Tarleton is proud of its spacious classrooms, well-equipped laboratories, and extensive library collections. Other facilities include a multimedia foreign language laboratory, modern Fine Arts Center, and updated agricultural facilities.

An ongoing construction and modernization program ensures that Tarleton keeps abreast of new developments. The Barry B. Thompson Student Center, a 90,000-square-foot facility, is the hub for campus activity and is an integral part of the University's educational environment. The Center offers a food court, bookstore, post office, conference and meeting facilities, study areas, and commuter lounge. Other recently completed buildings include a number of new residence halls. Tarleton's science building features a planetarium plus state-of-the-art laboratory and classroom space for students to engage in study and research. The newest buildings on campus are the university dining hall, nursing building, dairy complex, and the sports recreational facility featuring an indoor walking track, climbing wall, and state of the art exercise equipment.

The Texas A&M University System

Academic institutions under the direction of the Board of Regents of The Texas A&M University System include:

- Prairie View A&M University
- Tarleton State University
- Texas A&M University
- Texas A&M International University
- Texas A&M University - Central Texas
- Texas A&M University - Commerce
- Texas A&M University - Corpus Christi
- Texas A&M University - Kingsville
- Texas A&M University - San Antonio
- Texas A&M University - Texarkana
- West Texas A&M University

Other agencies and programs in The Texas A&M University System are:

- Texas A&M AgriLife Research
- Texas A&M AgriLife Extension Service
- Texas Division of Emergency Management
- Texas A&M Engineering Experiment Station
- Texas A&M Engineering Extension Service
- Texas A&M Forest Service
- Texas A&M Transportation Institute
- Texas A&M Veterinary Medical Diagnostic Laboratory

Board of Regents

Name	Location
Robert L. Albritton (Chairman)	Fort Worth
Jay Graham (Vice Chairman)	Houston
David C. Baggett	Houston
John W. Bellinger	San Antonio
James R. "Randy" Brooks	San Angelo
Michael A. "Mike" Hernandez III	Fort Worth
William "Bill" Mahomes Jr.	Dallas
Kelley Sullivan Georgiades	Galveston
Sam Torn	Houston
Jaquavous S. Doucette (Student Regent)	Fort Worth

Purpose of Catalog

This catalog is printed to provide information about the academic programs of Tarleton State University to students, prospective students, faculty, and staff of the University. While every effort has been made to make this catalog as complete and accurate as possible, changes may occur at any time in requirements, deadlines, fees, curricula, and courses listed in this catalog. This catalog is published annually, in advance of its effective date; therefore its contents cannot be considered an agreement or contract between individual students and the University. In addition to this annual print publication, the University maintains an online edition of the catalog at catalog.tarleton.edu (https://catalog.tarleton.edu/), which is the most current edition of the catalog available.

Graduate

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The Texas A&M University System Board of Directors approved graduate degree programs at the master's level for Tarleton State University on November 26, 1969. Meeting in a special session at College Station, the Coordinating Board of the Texas College and University Systems granted approval on December 4, 1969, for three initial master's-level programs, setting the Fall Semester of 1971 as the effective date of graduate course offerings for the programs.

Goals

The mission of the College of Graduate Studies is to promote excellence in graduate education through teaching, research, and service. The College of Graduate Studies, in conjunction with the Graduate Council, accomplishes its mission through the planning and development of policy and procedures related to graduate education; the recruitment, admission, and retention of qualified students; and by providing support and coordination of high quality course offerings and degree programs.

Evidence of these collective goals is that the graduates will demonstrate the following:

1. Increased professional competence in the chosen field of study;
2. Refined use of analytical methodology; and,
3. Advanced preparation and skills in the academic discipline.

Administration

Administration of the College of Graduate Studies is the responsibility of the Dean of the College of Graduate Studies. The Graduate Council, comprised of graduate faculty representatives from departments offering graduate programs, assists in establishing policies concerning the graduate school. The Dean of the College of Graduate Studies is chair of the Graduate Council and has the authority to act for the administration and the Council within limits of policy.

Graduate Degree Programs

Admission policies, program requirements, and comprehensive assessment procedures for each of these graduate degree programs are specifically described within the appropriate departmental sections that follow.

College of Agriculture & Natural Resources

COLLEGE/DEPARTMENT	MAJOR	DEGREE	SEMESTER CREDIT HOURS
Department of Agricultural Education and Communication	Agricultural Leadership, Education, & Communications	MS	36
Department of Agricultural Education and Communication	Agricultural Economics	MS	30-36
Department of Animal Science	Animal Production	MAg	31
Department of Animal Science	Animal Science	MS	36
Department of Wildlife and Natural Resources	Agricultural and Natural Resource Sciences	MS	36
Department of Wildlife and Natural Resources	Animal and Natural Resource Sciences	PHD	45

Dr. Sam Pack College of Business

COLLEGE/DEPARTMENT	MAJOR	DEGREE	SEMESTER CREDIT HOURS
Department of Accounting, Finance and Economics	Accounting	MAcc	30
Department of Management	Business Administration	MBA	30
Department of Management	Human Resources Management	MS	30
Department of Management	Logistics and Supply Chain Management	MS	30-36
Department of Management	Management	MS	30-36
Department of Marketing and Computer Information Systems	Marketing	MS	30
Department of Marketing and Computer Information Systems	Information Systems	MS	36

College of Education

COLLEGE/DEPARTMENT	MAJOR	DEGREE	SEMESTER CREDIT HOURS
Department of Counseling	Clinical Mental Health Counseling	MS	60
Department of Counseling	School Mental Health Counseling	MS	60
Department of Counseling	Counseling	PhD	72
Department of Curriculum and Instruction	Child Development and Family Studies	MS	30
Department of Curriculum and Instruction	Curriculum and Instruction	MED	30-33
Department of Educational Leadership and Technology	Educational Administration	MED	30-33
Department of Educational Leadership and Technology	Educational Leadership	EDD	63
Department of Psychological Sciences	Applied Psychology	MS	30

Department of Psychological Sciences	School Psychology	SSP	63
Department of Psychological Sciences	Experimental Psychology	PhD	66

Mayfield College of Engineering

COLLEGE/DEPARTMENT	MAJOR	DEGREE	SEMESTER CREDIT HOURS
Department of Computer Science and Electrical Engineering	Artificial Intelligence and Machine Learning	MS	33-36
Department of Computer Science and Electrical Engineering	Computer Engineering	MS	33-36
Department of Engineering Technology	Construction Science and Management	MS	30
Department of Engineering Technology	Quality and Engineering Management	MS	30
Department of Mechanical, Environmental and Civil Engineering	Civil Engineering	MS	30
Department of Mechanical, Environmental and Civil Engineering	Mechanical Engineering	MS	33

College of Health & Clinical Professions

COLLEGE/DEPARTMENT	MAJOR	DEGREE	SEMESTER CREDIT HOURS
School of Health and Clinical Professions	Physician Assistant Medicine	MMSc	128
College of Health and Clinical Professions	Occupational Therapy	OTD	86
College of Health and Clinical Professions	Physical Therapy	DPT	114
Department of Athletic Training and Communication Disorders	Athletic Training	MSAT	55
Department of Medical Lab Sciences and Nutrition Science	Medical Laboratory Science	MS	36
Department of Social Work and Public Health	Social Work	MSW	30-60

College of Kinesiology & Sport Science

COLLEGE/DEPARTMENT	MAJOR	DEGREE	SEMESTER CREDIT HOURS
Department of Health and Human Physiology	Exercise Science	MS	36
Department of Health and Human Physiology	Rehabilitation Science	MS	36
Department of Sport Professions	Kinesiology	MS	30
Department of Sport Professions	Sport Management	MS	30

College of Liberal & Fine Arts

COLLEGE/DEPARTMENT	MAJOR	DEGREE	SEMESTER CREDIT HOURS
Department of Communication Studies	Communication Studies	MA	30
Department of Criminal Justice	Criminal Justice	MCJ	30-36
Department of English & Languages	English	MA	36
Department of Performing Arts	Music Education	MM	36
School of Criminology, Criminal Justice and Public Administration	Public Administration	MPA	36

College of Nursing

COLLEGE/DEPARTMENT	MAJOR	DEGREE	SEMESTER CREDIT HOURS
Department of Graduate Nursing Education	Nursing Administration	MSN	36
Department of Graduate Nursing Education	Nursing Education	MSN	39

College of Science & Mathematics

COLLEGE/DEPARTMENT	MAJOR	DEGREE	SEMESTER CREDIT HOURS
Department of Biological Sciences	Biology	MS	31-36
Department of Chemistry, Geoscience, and Physics	Environmental Science	MS	32-36
Department of Mathematics	Data Science	MS	30
Department of Mathematics	Mathematics	MS	30

General Graduate Admissions

Admission to the College of Graduate Studies

Admission to the College of Graduate Studies is administered for the Graduate Council by the Dean of the College of Graduate Studies. Applicants seeking admission must present the following credentials and materials indicating they possess the ability to pursue graduate work successfully:

1. An online graduate application for admission (http://choose.tarleton.edu/application) and a $50 application fee
2. Official transcript noting bachelor's degree conferral. The transcript must bear the date of bachelor's degree conferral or master's degree if applicable, and indicate that the applicant was in good standing. Degree must have been earned from an institution holding an accreditation recognized by either the Texas Higher Education Coordinating Board or the U.S. Department of Education.

3. GRE/GMAT/MAT scores - Please check with your major department to see which exam is preferred (*if applicable*)
4. A Statement of Purpose addressing career and academic goals (600 words or less)

Beyond these general requirements for admission to the College of Graduate Studies, departments may set additional standards for admission to degree programs (https://www.tarleton.edu/graduate/future/requirements.html), subject to administrative approval.

Categories of Admission

Enrollment in the College of Graduate Studies requires that students obtain the following:

1. Admission-Good Standing
2. Admission-Warning
3. Admission to a Professional Teacher Certificate Program
4. Admission as a Non-Degree Seeking
5. Admission to a Dual Master's Program
6. Undergraduate-to-Graduate Degree Pathways

Admission-Good Standing

- A minimum grade point average of 3.0 (*on a 4-point scale*) on either the overall undergraduate or the last attempted 60-hours.
- GRE/GMAT/MAT scores if required by Major department. Please check with your major department to see which exam is preferred (*if applicable*).
- Completion of specific departmental admission requirements and recommendation for admission from the appropriate department may be required for admission to the chosen field of study.

Admission-Warning

- A minimum grade point average range of 2.5-2.99 (*on a 4-point scale*) on either the overall undergraduate or the last attempted 60-hours.
- GRE/GMAT/MAT scores if required by Major department. Please check with your major department to see which exam is preferred (*if applicable*).
- Students admitted under this category are placed on Academic Warning. Students must achieve a 3.0 cumulative grade point average their first semester of enrollment or they will be placed on Academic Suspension (See *Graduate Student Performance* section).
- Admission is not routinely granted to a student whose GPA (overall undergraduate or last 60-hours) is less than 2.5. In cases when a student has significant experience in their major field of study, and does not meet minimum University/Program admission requirements, departments may choose to submit a special approval request to the College of Graduate Studies. This process may only be initiated by a department and must be approved by the Dean of the College of Graduate Studies.
- Completion of specific departmental admission requirements and recommendation for admission from the appropriate department may be required for admission to the chosen field of study.

Admission to a Professional Teacher Certificate Program

- Professional teacher certificate programs are open only to graduate students.
- Admission to a professional teacher certificate program is granted upon the recommendation of the head of the department in which the program is offered and the submission of a certificate plan approved by the University Teacher Certification Officer.
- Professional Teacher Certification is tied to admission to a graduate degree program in the College of Education.

Admission as a Non-Degree Seeking Student

Applicants who designate that they do not wish to seek a graduate degree but who hold a baccalaureate degree from an institution holding an accreditation recognized by either the Texas Higher Education Coordinating Board or the U.S. Department of Education may be admitted to the College of Graduate Studies as a Non-Degree Seeking graduate student.

- **Eligibility Requirements:**
  - Applicants must hold a baccalaureate degree from an institution holding an accreditation recognized by either the Texas Higher Education Coordinating Board or the U.S. Department of Education.
  - A minimum GPA of 2.5 in the last 60 credit hours of undergraduate coursework is required.
  - Official transcript indicating the conferral of the bachelor's degree and good academic standing are necessary.
  - GRE or GMAT scores are not required for admission as a non-degree-seeking student, but certain departments may request GRE scores for specific certifications or coursework.
- **Limitations:**
  - The student may take up to 18 credit hours of coursework while classified as non-degree-seeking students.
  - A maximum of 12 credit hours taken as a non-degree-seeking student can be counted toward a graduate degree, provided the student later meets the admission criteria for the College of Graduate Studies and the specific graduate program.
  - A student admitted under this status do not have a guarantee that coursework completed will be applicable toward a degree if they later decide to pursue one.
- **Admission Process:**
  - Submit an application to the College of Graduate Studies as a non-degree-seeking student.
  - Provide official transcript to verify degree conferral and academic standing.
  - If applicable, provide any additional documents required by specific departments (such as GRE scores for certification programs).
  - The student who cannot provide all official records before registration may be admitted for one semester on a provisional basis, pending receipt of all documents

Admission to a Dual Master's Degree Program

A Dual Degree program is designed to allow students to complete two master's degrees concurrently. Participating programs will provide specific information on their master's degree and possible combinations. This pathway enables students to gain expertise in complementary disciplines, enhancing their career prospects and academic breadth.

- **Eligibility Requirements:**
  - An applicant must meet the admission requirements for both degree programs, which may include program-specific GPA standards, prerequisite coursework, and other departmental criteria.
  - The applicant should be accepted into both programs at the time of admission.
  - Approval from both academic departments is required to participate in the dual degree program.
- **Limitations:**
  - If leveling courses are required for a non-related discipline, they must be included in the degree plan, potentially increasing the total number of credit hours required.

- A general guideline for programs exceeding 36 total credit hours is that up to 12 credit hours may be shared between both degrees.
- At least 18 credit hours must be completed in each program to ensure the student meets the core requirements of both degrees.
- Each program's unique requirements must still be fulfilled, and the student cannot double-count courses not approved for dual credit.

- **Admission Process:**
  - Submit applications to both graduate programs, including required supporting documents such as transcripts, recommendation letters, and standardized test scores (if applicable).
  - Work with academic advisors from both programs to develop an integrated degree plan that meets the requirements for both degrees.
  - If leveling courses are needed, include them in the degree plan to address any gaps in prerequisite knowledge.
  - Approval of the dual degree plan must be obtained from both departments and the College of Graduate Studies.

Undergraduate-to-Graduate Degree Pathways

There are several scenarios where an undergraduate student may be afforded an opportunity to take graduate courses before the conferral of the bachelor's degree. The most common method is through the provisional enrollment pathway, which allows an undergraduate student to take graduate courses during the last 12 semester credit hours (SCH) of their degree plan. Tarleton offers early-acceptance and auto-acceptance into a graduate program as well as two other types of formalized degree programs designed to create efficient undergraduate-to-graduate pathways: accelerated programs and 4+1 programs. Both the accelerated and 4+1 program approaches are similarly focused on creating a faster pathway to the master's degree, but the curricular structures that create the efficient pathway are slightly different.

Early-Acceptance into a Graduate Program

Early acceptance allows undergraduate students to secure a spot in a graduate program while still completing their bachelor's degree. This pathway allows students to plan for their graduate studies in advance and may expedite their transition to graduate coursework through provisional enrollment.

- **Eligibility Requirements:**
  - A student may apply for admission to graduate school when they are within 30 hours of completing their undergraduate degree.
  - The student must formally apply to the graduate program, submitting a regular application to the College of Graduate Studies.
- **Limitations:**
  - Early acceptance does not automatically grant permission to take graduate courses while still classified as an undergraduate; provisional enrollment must be used for that purpose.
  - For students who wish to take graduate courses before completing their undergraduate degree, the Graduate Provisional/Accelerated Enrollment Form should be used.
  - The student may take a maximum of 12 credit hours of graduate-level coursework while completing their bachelor's degree under provisional enrollment. Graduate courses taken under the provisional status may count toward the undergraduate degree but cannot fulfill graduate degree requirements, except in approved accelerated programs.
- **Admission Process:**
  - Submit a regular application for the graduate program to the College of Graduate Studies.
  - Standard application components, including fees, test scores, transcripts, and statements of purpose, are required for these students.

After earning the bachelor's degree, the student will continue into the graduate program.

Provisional Enrollment in Graduate Courses as an Undergraduate Student

This pathway allows undergraduate students nearing the completion of their bachelor's degree to start taking graduate courses. It provides an opportunity for students to accelerate their education and transition smoothly into a graduate program.

- **Eligibility Requirements:**
  - A student may enroll in graduate courses when they are within 12 hours of completing their undergraduate degree.
  - The student must have a minimum 3.0 GPA over the last 60 hours of coursework.
  - The student must remain enrolled in at least one undergraduate course during the semester of provisional enrollment.
- **Limitations:**
  - There is a maximum of 12 credit hours of graduate courses while in provisional status.
  - For Undergraduate Degrees within an Accelerated Program: These graduate courses will count toward both undergraduate and graduate degrees.
  - For Undergraduate Degrees outside of an Accelerated Program: These graduate courses will count solely toward the graduate degree.
- **Application Process:**
  - Complete the Graduate Provisional/Accelerated Enrollment Form

Auto-Acceptance into a Graduate Program

This pathway provides an expedited admission process for graduating seniors, enabling a seamless transition into graduate studies at Tarleton State University.

- **Eligibility Requirements:**
  - Available to all graduating seniors from Tarleton State University.
  - The student must meet the general academic criteria for admission to the graduate program.
- **Limitations:**
  - Auto-acceptance applies only to select graduate programs, which may have additional prerequisites or specific conditions.
- **Admissions Process:**
  - Qualified graduating seniors may be automatically admitted to select graduate programs, streamlining their transition to graduate studies.
  - The student who qualifies will receive an invitation from the College of Graduate Studies outlining available master's programs.
  - The student will fill out a short informational form.
  - Standard application components, including fees, test scores, transcripts, and statements of purpose, are waived for these students.

Accelerated Bachelor's-to-Master's Degree Programs

The 5-year bachelor's-to-master's degree program allows talented undergraduates at Tarleton State University an opportunity to complete the requirements for both the bachelor's and master's degrees at an accelerated pace. All programs must meet SACSCOC requirements for program length. Students entering the participating programs should be encouraged to place a focus on research as a part of their undergraduate/graduate plan.

- **Eligibility Requirements:**
  - A student must be an undergraduate student meeting GPA requirements set by the academic program.
  - The student must have completed between 75 and 108 credit hours in their undergraduate program, including any credits earned through advanced placement.
  - Transfer students must have completed a minimum of two semesters as a full-time student at Tarleton, at least 24 hours.

- **Limitations:**
  - Once admitted to the accelerated program, the student may double-count up to 12 credit hours of graduate courses designated in the accelerated program toward their master's degree requirements.
  - These courses can be taken during the final year of their undergraduate studies.
  - Participation is limited to programs with an approved accelerated curriculum.
- **Admission Process:**
  - Complete the Graduate Provisional/Accelerated Enrollment Form to take graduate courses as an undergraduate student.
  - Work with an academic advisor to integrate graduate courses into the undergraduate degree plan.
  - The student pursuing the Bachelor's-to-Master's Degree Program will be automatically accepted into the master's program through the Auto-Acceptance Program upon meeting the eligibility requirements, streamlining the transition.
  - Auto-Acceptance waives typical application requirements such as application fees and additional documentation. No GRE or other standardized test score will be required unless the participating program or department requires it for admission to their program.
  - Upon completing the bachelor's degree requirements, students continue in the master's program without needing to reapply. However, some programs may require an additional admission step or approval.

4+1 Combined Degree Programs

The 4+1 program allows students to complete both a bachelor's and a master's degree within five years. Unlike accelerated programs, courses are not double-counted. Instead, students complete all requirements for both degrees within the specified timeframe. This pathway is designed to accelerate the completion of both degrees without compromising academic rigor.

- **Eligibility Requirements:**
  - A student must be in good academic standing within 12-30 credit hours of completing their bachelor's degree.
  - A minimum GPA (typically around 3.0) specified by the graduate program is required.
  - Approval from the student's department is needed to participate in the 4+1 program.
  - The program is available for specific, approved degree plans where integrating undergraduate and graduate coursework is feasible.
- **Limitations:**
  - Courses taken during the 4+1 program cannot be double-counted to fulfill both undergraduate and graduate degree requirements unless explicitly permitted by the program's guidelines.
  - Up to 12 graduate credit hours may be taken during the final year of the undergraduate program through the Provisional Enrollment in Graduate Courses process.
  - The student must still fulfill all undergraduate graduation requirements before being officially awarded the bachelor's degree.
  - The program must offer and schedule the courses such that the students can complete this pathway.
- **Admission Process:**
  - A student pursuing the 4+1 program will be automatically accepted into the Master's program through the Auto-Acceptance Program process upon meeting the eligibility requirements, streamlining the transition.
  - Auto-Acceptance waives typical application requirements such as standardized test scores, application fees, and additional documentation.
  - Upon completing the bachelor's degree requirements, students continue in the master's program without needing to reapply. However, some programs may require an additional admission step or approval.

Post-Baccalaureate Undergraduate Student

An applicant who does not wish to pursue a graduate degree or graduate-level teacher certification program but who has earned a bachelor's degree from an institution holding an accreditation recognized by either the Texas Higher Education Coordinating Board or the U.S. Department of Education, and who is in good standing at the last school attended may apply for admission as a post-baccalaureate student. These applications are received and processed in the Office of Undergraduate Admissions. Post-baccalaureate students are subject to all requirements and regulations that apply to undergraduates. They must meet the academic progress standards applicable to undergraduates and are subject to the same academic warning/suspension policies.

International Admissions

All students who are not U.S. citizens or U.S. permanent residents are considered international students and must meet the following admission requirements. Some programs may have a secondary application process so timely submission of all documents is important. An I-20 cannot be issued until all materials are received and the applicant has been admitted to the College of Graduate Studies.

1. An application for admission to the College of Graduate Studies. The online application is located on the International Graduate Admissions website.
2. A $50, non-refundable application fee.
3. A course-by-course evaluation. Degrees earned at a foreign institution must be evaluated by a recognized member of NACES (National Association of Credential Evaluation Services) or from AICE (Association of International Credential Evaluators, Inc.) and must be equivalent to a 4 year degree earned from an institution holding an accreditation recognized by either the Texas Higher Education Coordinating Board or the U.S. Department of Education. This type of evaluation is required for all foreign degrees.
4. Proof of English proficiency can be no more than two years old and can be satisfied by one of the following:
   - A minimum TOEFL iBT score of 4
   - A minimum IELTS score of 6
   - A minimum PTE score of 53
   - A minimum TOEFL ITP Plus for China score of 543
   - A minimum iTEP score range of 3.5-3.9
   - A minimum TOEFL Essentials score of 8
   - A minimum Duolingo score of 110
   - Completion of Level 9 at The Language Company
   - Completion of a Bachelor's degree or higher from an institution holding an accreditation recognized by either the Texas Higher Education Coordinating Board or the U.S. Department of Education
5. GRE/GMAT/MAT scores if required by Major department. Please check with your department to see which exam, if any, is preferred.
6. Financial documentation (for students studying on-campus in the U.S.)

- Proof of sufficient funding to cover the cost of tuition, fees, books, insurance, living expenses, and personal expenses for one academic year
- Signed Affidavit of Financial Support if you have a sponsor

Additionally, Tarleton State University requires that all student have medical insurance with coverage in the United States. Fees for medical insurance will be charged with tuition at the time of registration, after full admission.

The Department of Admissions performs authentication of student admissions materials and required identification and immigration documentation. A primary Restricted Party Screening (RPS) is performed by the Department of Admissions for all foreign nationals seeking admission to the university with a secondary screening by Compliance and Strategic Initiatives (CSI), as needed. CSI will seek guidance from the empowered official (EO) and/or System Research and Security Office (RSO) as needed for resolution of concerns and for decision-making regarding admission approval. Foreign persons will not be admitted to the university until they have been cleared through the export control screening process.

Authentication of Materials

The Office of Graduate Admissions performs authentication of student admissions materials and required identification. Immigration documentation is reviewed by the Office of International Programs. A primary Restricted Party Screening (RPS) is performed by the Office of International Programs for all foreign nationals seeking enrollment to the university with a secondary screening by University Compliance (UC), as needed. UC will seek guidance from the empowered official (EO) and/or System Research and Security Office (RSO) as needed for resolution of concerns and for decision-making regarding admission approval. Foreign persons will not be enrolled in the university until they have been cleared through the export control screening process.

Graduate Advising and Committees

Graduate Advisor and Student's Advisory Committee

The graduate coordinator/advisor, designated by a department, assists students in planning their initial course work prior to granting of admission to the program of study. Before seeking enrollment in any course that might be applied toward a master's degree, students must consult their advisors.

After receiving admission to the College of Graduate Studies and enrolling for graduate courses, the student should consult with the graduate advisor concerning appointment of an advisory committee. The advisory committee is responsible for guiding and directing the student's entire academic program, which includes initiating all academic actions concerning the student, developing the degree plan, meeting required deadlines, and administering any required comprehensive assessment prior to conferral of the master's degree. Moreover, the advisory committee, as a group and as individual members, is responsible for counseling the student on academic matters, and in the case of academic deficiency, initiating recommendations to the Dean of the College of Graduate Studies.

Thesis or Dissertation Committee

A thesis or dissertation committee must be comprised of graduate faculty members. The committee composition may be decided by the student in consultation with their graduate advisor and generally follows as:

1. Chair (experienced graduate faculty member from the student's academic department)

2. Committee member from the student's academic department or closely-related discipline within the academic college

3. Committee member from the student's academic department or closely-related discipline within the academic college or from another University where their expertise is suitable for the research question or design

A fourth committee member can also be allowed for additional expertise with the Graduate Dean's approval. If a member of the committee is from another University, they must be an approved member of Tarleton's graduate faculty before serving.

Academic Load

Master's Student

Semester Credit Hours	Fall/Spring	Summer
Maximum Load	16	12
Full-time	9	6*

Doctoral Student

Semester Credit Hours	Fall/Spring	Summer
Maximum Load	12	12
Full-time	6	6*

* Students with financial aid/scholarship(s) should refer to the Financial Aid website for additional information, regarding aid, during the full-time summer term.

Graduate Academic Standing

Every student enrolled in the College of Graduate Studies is required to maintain a high level of performance and comply fully with the policies of the institution. The College reserves the right to suspend any graduate student who does not maintain satisfactory academic standing or fails to conform to University regulations.

Students who have achieved admission are expected to maintain a minimum 3.0 GPA on work completed at Tarleton. If in a particular semester a student's cumulative GPA or overall GPA falls below the 3.0 GPA minimum, he/she will be given notice of unsatisfactory academic performance. The student must attain a 3.0 cumulative GPA during her or his next period of enrollment; failure to do so will result in suspension for one semester. A student must maintain at least a 3.0 grade point average every semester upon returning from the suspension. A graduate student is allowed one suspension. If poor academic performance results in a second suspension, the student will be permanently dismissed from the university. A student's cumulative GPA is calculated based on coursework attempted at Tarleton State University and a student's overall GPA is calculated based on coursework attempted at Tarleton State University plus any applicable transfer coursework. Undergraduate courses taken for leveling or as undesignated electives are used in the calculation of the semester and cumulative grade point averages and thus determine one's academic standing.

At the end of any grading period, if a student's overall GPA falls below 2.0 he/she will be automatically suspended, with no academic warning, and cannot enroll for one semester.

Students who have been admitted on Academic Warning must achieve a 3.0 GPA or greater their first semester of enrollment. If requirements are not met, admission will be rescinded, and students will be placed on Academic Suspension.

Graduate students who are on first-time suspension must reapply (including the $50 application fee) to the College of Graduate Studies for reinstatement.

Grading System

Graduate degree credit is allowed only for A, B, and C grades. A grade point average of 3.0 or higher is required:

1. For all courses included in a degree plan
2. For all courses comprising the major field
3. For courses comprising the concentration field, if one is selected

Courses taken at Tarleton may not be repeated at another institution for degree credit. If a course is repeated at Tarleton, the better grade in the course shall be counted in computing the student's grade point average.

The grading system for graduate students is:

- A - Excellent, 4 grade points per semester hour
- B - Good, 3 grade points per semester hour
- C - Fair, 2 grade points per semester hour
- D - Not Passing for graduate course work, failed course.
- F0 - Failed course, never attended class
- FX - Failed course, last date of attendance was before the last day of class
- F - Failed course, last date of attendance was the last day of class
- I - In-Progress (for thesis courses only)
- K - Incomplete
- NP - No Progress (for dissertation courses only)
- P - Pass, C or Better
- PR - In-Progress (for dissertation courses only)
- S - Satisfactory (for completion of 6 hours of thesis and 12 hours of dissertation courses only)
- W - Withdrawal from course, no grade designated
- WF - Withdrawal failing (included in GPA)
- Z - Research or practicum courses for which only grade given is for final three hours enrolled. Exclusive use for Department of Curriculum and Instruction.

The grade K shall be recorded for a student only in case of extraordinary circumstances. This entry is used only in such cases after the instructor and his/her department head have concurred that the incomplete entry is justified. A grade of K must be made up by the end of the next semester and in all cases before registering for the next sequential course. If this grade is not made up within the prescribed time limit, it automatically becomes a F.

Internships in Education not completed during the first semester of registration will receive a letter grade of K (incomplete). Registration will be permitted for the following semester, at which time a letter grade will be awarded upon satisfactory completion of the required work. If the work is not completed during the subsequent semester, the previous semester's K will become NC, and a letter grade of F will be placed on the transcript for the subsequent semester's work.

Completion Time Limit

Course credits more than six years old at the anticipated time for degree completion may not be counted for a master's degree. Course credits more than ten years old at the anticipated time for degree completion may not be counted for a doctoral degree. Credits are considered to be earned when they are recorded on the official transcript. This time limit applies to both transfer coursework and coursework earned at Tarleton State University.

General Requirements for the Graduate Degree

Credit for Problems Courses

Students taking Problems courses (5086) for graduate credit will be expected to complete course requirements different from those ordinarily included for undergraduates. The number of individual problems courses taken for credit toward the degree and the approved undergraduate courses is limited to a combination of no more than 12 hours.

Graduate Transfer Credit

Master’s Degree Programs

A maximum of 50% of the required coursework in a master’s degree program at Tarleton State University may be transferred in from another accredited institution. This transfer credit requires the recommendation of the advisory committee, the head of the major department, and the approval of the Dean of the College of Graduate Studies. This credit may have been counted toward a completed degree. All transfer credits must meet Tarleton's program relevancy, academic, and accreditation standards.

A student seeking a second master’s degree at Tarleton State University may apply up to 12 hours of coursework that have been counted toward a completed graduate degree at Tarleton upon the recommendation of the advisory committee, head of the major department and the approval of the Dean of the College of Graduate Studies.

Doctoral Degree Programs

A maximum of 50% of the required coursework in a doctoral degree program at Tarleton State University may be transferred in from another accredited institution upon the recommendation of the advisory committee, head of the major department, and the approval of the Dean of the College of Graduate Studies. This credit may have been counted toward a completed degree. All transfer credits must meet Tarleton's program relevancy, academic, and accreditation standards.

Degree Plan

A graduate student's degree plan includes those courses listed for degree credit on the official degree plan form. All courses on the approved degree plan must be completed with a satisfactory grade to meet requirements for the degree. Changes in an approved degree plan can be made by recommendation to the Dean of the College of Graduate Studies by the student's complete advisory committee and head of his or her major department.

Courses listed for graduate credit on the approved degree plan in which the student has received a final grade may not normally be removed from the degree plan, although courses acceptable for graduate credit may be added. Exceptions to this policy must be approved by the student's advisory committee, head of his or her major department, and the Dean of the College of Graduate Studies.

Degree Major

All degrees require a minimum of 18 semester hours to be completed in the student's major field.

Continuous Enrollment

Doctoral students are required to maintain continuous enrollment toward the doctoral degree for the duration of their program. This consists of enrolling in courses and/or dissertation hours each semester: Fall, Spring, and Summer. Students who take a break from progress must submit a Leave-of-Absence request with their advisor and have approval from the head of the department and the Dean of the College of Graduate Studies.

Research Requirement

All students seeking a master's degree must have credit for an approved research course.

Thesis

Not every graduate program at Tarleton requires a thesis for completion of a master's degree. Please check with your academic department to determine which degrees provide a thesis option.

Students must have full admission to a degree program and the permission of the department head to enroll in thesis. A thesis will not be accepted unless a student has completed a minimum of six semester hours of thesis course work. The Thesis Manual, which contains details regarding the preparation and submission of a thesis for approval, is available on the Graduate College website. Students who plan to pursue a thesis should obtain a copy of this manual early in their graduate program. A thesis proposal must be submitted to the Graduate Office at least one semester prior to a thesis submission.

Students who pursue a thesis may be required to enroll each semester in at least one thesis course until the thesis is completed. Those who make satisfactory progress will be given the grade of I. Once the thesis has been approved and accepted, the final six semester hours of thesis will be assigned the grade of S. The thesis grade of S is not included in the GPA calculation for the degree major or minor. Only six hours of thesis credit will count towards the degree.

The Comprehensive Assessment

Candidates for any of the master's degrees at Tarleton must satisfactorily pass a comprehensive assessment. A graduate student must be admitted to candidacy for a degree before he/she will be allowed to take the comprehensive assessment.

The policies and procedures for the comprehensive assessment are available in the office of the department head of the student's major field of study. Early in their degree program students should review the requirements for the assessment. Some departments require both oral and written assessments, which must be scheduled early in the semester in which they are to be administered. Consult the University calendar for deadlines for submission of comprehensive assessment results to the College of Graduate Studies. If the student's advisory committee decides an oral assessment is required, a representative of the Dean of the College of Graduate Studies may be invited to participate.

Students whose performance on the comprehensive assessment is unsatisfactory may reschedule an assessment at the next regular administration, or, at the discretion of the advisory committee and head of the department involved, at an earlier date. Unless departmental requirements are more limiting, students who attempt the comprehensive assessment three times and are not successful will be dropped from the graduate program.

Degree Conferral

Candidates for a degree must complete the online graduation application no later than the dates specified in the University Calendar. Students must have a current graduate degree plan on file in the College of Graduate Studies before applying to graduate. To be considered for degree conferral, a candidate must be in good standing with the University and achieve no less than a 3.0 grade point average on all courses within the degree plan. All contractual and financial obligations to the University must be satisfied.

Graduate Assistantships

Assistantships for graduate students are available in most academic departments that offer a master's or doctoral program as well as other university support areas. Most assistantships are considered as a staffing function of the department in which the applicant wishes to study.

Eligibility Requirements:

- Admission into the College of Graduate Studies
- If teaching, may need a minimum of 18 graduate hours in the field to be taught, depending on assignment
- Maintain at least a 3.0 cumulative graduate GPA
- Be enrolled in and complete at least 6 hours of graduate credit each term (*3 hours for the entire summer session)

*For work eligibility during a summer term, a graduate student must meet at least one of the following conditions: (1) be enrolled for at least three graduate semester credit hours for the summer term; or (2) have been enrolled as a graduate student the prior semester/term **and** have a reasonable expectation of returning the next semester/term. A student who graduates mid-month may continue to work as a graduate student until the end of that month.

Stacked Courses

Stacked courses allow undergraduate and graduate students to enroll in a course with a shared curriculum while maintaining distinct requirements and rigor appropriate to their academic levels. This structure supports an integrated learning environment, enhancing collaboration and promoting academic progression.

- **Course Levels Involved:**
  - Typically, 4000-level undergraduate courses may be stacked with 5000-level graduate courses. This stacking tends to be more common because 4000-level courses represent advanced undergraduate coursework, aligning more closely with introductory graduate-level courses.
  - Stacking 5000-level graduate courses with 6000-level graduate courses is used within graduate programs to accommodate students at different stages of their academic journey. This arrangement is often employed when there is a strong overlap in course content but with differentiated expectations for more advanced graduate students.
- **Limitations**:
  - Stacked courses must distinguish between undergraduate and graduate-level learning outcomes, assignments, and assessments, as required by SACSCOC Standard 9.6.
  - The graduate-level component must demonstrate a higher degree of rigor, including but not limited to advanced research, analytical tasks, and leadership within group activities.
  - Graduate programs must ensure that stacked courses align with accreditation and institutional policies, including curriculum differentiation and faculty oversight.
  - Faculty teaching stacked courses must provide separate syllabi for undergraduate and graduate sections of stacked courses, ensuring differentiation in learning outcomes, complexity, and assessment criteria. While SACSCOC does not mandate a specific percentage difference in content, the syllabi must clearly demonstrate the distinction in course expectations and rigor for each academic level.
- **Process**:
  - Course proposals for stacked courses must outline distinct undergraduate and graduate requirements and be approved by the appropriate academic and curriculum committees.
  - Faculty teaching stacked courses must ensure compliance with SACSCOC 9.6 standards by maintaining differentiated syllabi and assessments.

Purpose of Catalog

This catalog is printed to provide information about the academic programs of Tarleton State University to students, prospective students, faculty, and staff of the University. While every effort has been made to make this catalog as complete and accurate as possible, changes may occur at any time in requirements, deadlines, fees, curricula, and courses listed in this catalog. This catalog is published annually, in advance of its effective date; therefore its contents cannot be considered an agreement or contact between individual students and the University. In addition to this annual print publication, the University maintains an online edition of the catalog at catalog.tarleton.edu (https://catalog.tarleton.edu/), which is the most current edition of the catalog available.

College of Agriculture and Natural Resources

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The College of Agriculture and Natural Resources includes the Department of Agricultural Education and Communication; the Division of Agribusiness and Agricultural Economics; the Department of Animal Science; and the Department of Wildlife and Natural Resources. Each offers the M.S. degree with both thesis and non-thesis options. The departments are interdependent and use common resources in developing and offering specialized programs appealing to a broad array of graduate student interests.

The College's graduate students are known for high performance and for contributions to their professions in all areas of agriculture and natural resources. All career tracks are designed with the goal of providing graduates with the academic background to compete in the employment market or continue their graduate studies.

The College of Agriculture and Natural Resources offers coursework leading to a Doctor of Philosophy in Animal and Natural Resource Sciences. The Animal and Natural Resource Sciences Ph.D. is a unique program that reaches across disciplines to solve problems associated with maximizing energy and food production while conserving natural resources in the face of increased environmental stressors. No other program in the southwestern United States explicitly focuses on preparing students to balance these competing factors.

The Tarleton Agriculture Center is central to our opportunities for graduate instruction. Agriculture Center facilities include the Southwest Regional Dairy; the Animal and Plant Science Center with six state-of-the-art laboratories, four greenhouses, 42,000 sq. ft. covered animal working area, and a retail merchandising center (The Purple Tractor); the Equine Center with indoor arena, dedicated laboratory space, and stallion barn; the Meats Laboratory; a beef cattle feedlot; The Agriculture Field Machinery and Fabrication Center with laboratories dedicated to metal fabrication, structures, and small engines, a computer lab, three classrooms, a multi-purpose room, and a spacious and well-equipped kitchen; a confinement swine operation; and an aquaponics/hydroponics center. Livestock includes dairy cattle, beef cattle, horses, sheep, goats, swine, and aquatic species. All facilities and other resources at the Tarleton Agriculture Center are available for graduate student use for research opportunities.

Departments and Programs

- College of Agriculture and Natural Resources
  - PhD in Animal and Natural Resource Sciences
- Department of Agricultural Education and Communication (p. 15)
  - MS in Agricultural Leadership, Education, & Communications
- Division of Agribusiness and Agricultural Economics (p. 18)
  - MS in Agricultural Economics
- Department of Animal Science (p. 20)
  - MAg in Animal Production
  - MS in Animal Science
- Department of Wildlife and Natural Resources (p. 23)
  - MS in Agricultural and Natural Resource Sciences

Ph.D. in Animal and Natural Resource Sciences

A unique program that reaches across disciplines to solve problems associated with maximizing energy and food production while conserving natural resources in the face of increased environmental stressors. No other program in the southwestern United States explicitly focuses on preparing students to balance these competing factors. The program integrates the animal sciences, natural resource sciences, and social sciences to breach disciplinary walls and leverage multidisciplinary synergies to address novel, twenty-first challenges. Graduates of the program will be equipped to increase America's food production capacity, conserve natural resources, enhance ecosystem services, and resolve resource conflicts. They will be prepared to conduct cutting-edge, multidisciplinary research; disseminate knowledge to students, managers, and policy-makers; and pursue careers as practitioners for private industry, universities, government agencies, and non-governmental organizations.

ARSC 6185	Graduate Seminar in Animal & Natural Resource Sciences [1]	3
Dissertation Hours		12-30
ARSC 6088	Dissertation	
6000 level courses (6 hours must be ARSC; must include a research methodology course) approved by student's committee		12-30
Total required hours		**45**

[1] ARSC 6185 needs to be repeated for a total of 3 credit hours.

Department of Agricultural Education and Communication

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The Department of Agricultural Education and Communication was created with the flexibility to design career programs for students. Individuals seeking knowledge in education, communications, and various humanistic interactions within all segments of the agricultural industry will find interest in the department's offerings. Each program requires students to complete an internship related to their field of study prior to graduation.

Master of Science in Agricultural Leadership, Education, & Communications

This degree is specifically designed for those who have completed an undergraduate degree in Agricultural Education or Extension, Agricultural Leadership, Agricultural Communication, or Agricultural Services and Development. It may also be advantageous for those who have completed a Bachelor of Science degree in other agricultural disciplines and who desire to complete the requirements for a teaching certificate and a master's degree simultaneously. The degree offers the flexibility of taking courses in one or more disciplines that best meet the needs of the individual to increase the professional competence of teachers of agriculture, extension agents, and others pursuing professional agricultural careers. The degree is also for students who plan further graduate study at the Ph.D. level. This degree is offered both on campus and online.

Full admission into the Master of Science in Agricultural Leadership, Education, & Communications requires an undergraduate GPA of 3.0 or higher in the last 60 hours of undergraduate studies. Students with a GPA of less than 3.0 but greater than 2.5 are accepted on a conditional basis. Once accepted, students must maintain a GPA of 3.0 or higher to remain in good standing.

There are two available options within the Master of Science Degree in Agricultural Leadership, Education, & Communications: the research (thesis) track, and the non-thesis track.

Thesis track students complete 30 hours of coursework and 6 hours of thesis credit. In addition, the typical curriculum for the thesis degree program involves an original research project under the direction of a graduate faculty member and the preparation of a thesis in addition to prescribed coursework. Thesis track students must present their thesis findings before their supervisory graduate committee.

Non-thesis track students complete 36 hours of coursework and must complete a written comprehensive examination, followed by an oral defense of the written exam (or student teaching experience) before their graduate committee.

Master of Science in Agricultural Leadership, Education, & Communications

ACRS 5385	Intro Seminar Agri & Con Res	3
ACRS 5398	Philo, Interp, Appl, of Res	3
ACRS 5396	Analysis of Social Research Data	3
or AGEC 5396	Analysis of Social Research Data	
ACRS 5397	History, Philosophy, & Policy of Agricultural & Extension Education	3
ACRS 5399	Agricultural and Consumer Resources Capstone	3
ACRS 5302	Leadrshp for Agri & Consum Res	3
Total Hours		**18**

Agricultural and Extension Education Certification

ACRS 5306	Instruction in Agricultural Mechanics	3
ACRS 5307	Agricultural Education Programs	3
ACRS 5350	Supervised Agricultural Experience Project Management	3
ACRS 5310	Programmatic Leadership Development	3
ACRS 5316	Prog Bldg in Career/Tech Ed	3
Electives		3
Total Hours		**18**

Agricultural Communications Non-Thesis

[1] Both ACOM 5086 and ACOM 5390 can be repeated for 9 hours each.

ACRS 5331	Professional Communication	3
ACOM 5310	Theory of Agricultural Communication	3
Choose 4 of the Following: [1]		12
ACOM 5086	Problems in Agricultural Communications	
ACOM 5360	Advanced Electronic Field Production for Agricultural Communications	
ACOM 5390	Special Topics	
ACOM 5341	Agricultural Communication Study Away	

or ACOM 5342	Study Abroad in Agricultural Communications	
Total Hours		**18**

Agricultural Communications Thesis

[1] Both ACOM 5086 and ACOM 5390 can be repeated up to 9 hours each.

ACRS 5088	Thesis	6
ACOM 5310	Theory of Agricultural Communication	3
ACRS 5331	Professional Communication	3
Choose 2 of the following: [1]		6
ACOM 5086	Problems in Agricultural Communications	
ACOM 5360	Advanced Electronic Field Production for Agricultural Communications	
ACOM 5390	Special Topics	
ACOM 5341	Agricultural Communication Study Away	
or ACOM 5342	Study Abroad in Agricultural Communications	
Total Hours		**18**

Leadership Non-Thesis

Choose 6 hours from the following:		6
ACRS 5311	Info Systems to ACR	
ACRS 5313	Adm & Supv of Career & Tech Ed	
ACRS 5318	Ethical/Env Iss Agri & Con Res	
ACRS 5319	Prof Dev Agri & Consum Res	
ACRS 5320	Prg& Pers Coop TX Agri Ext Ser	
ACRS 5321	Int'l Prog Ag & Cons Resour Ed	
ACRS 5330	Teaching Agriculture at the Postsecondary Level	
ACRS 5331	Professional Communication	
ACRS 5340	Methods of Tech Change	
ACRS 5360	Advanced Electronic Field Production for Agricultural Communications	
Electives		12
Total Hours		**18**

Leadership Thesis

ACRS 5088	Thesis	6
Select 6 hours from the following:		6
ACRS 5311	Info Systems to ACR	
ACRS 5313	Adm & Supv of Career & Tech Ed	
ACRS 5318	Ethical/Env Iss Agri & Con Res	
ACRS 5319	Prof Dev Agri & Consum Res	
ACRS 5320	Prg& Pers Coop TX Agri Ext Ser	
ACRS 5321	Int'l Prog Ag & Cons Resour Ed	
ACRS 5330	Teaching Agriculture at the Postsecondary Level	
ACRS 5331	Professional Communication	
ACRS 5340	Methods of Tech Change	
ACRS 5360	Advanced Electronic Field Production for Agricultural Communications	
Electives		6
Total Hours		**18**

Courses

ACRS 5086. Problems. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 1-6 Hours).
Studies related to agricultural education, extension, service and development, international programs, and policies affecting agriculture. Prerequisite: Approval of the instructor.

ACRS 5088. Thesis. 1-6 Credit Hours (Lecture: 1-6 Hours, Lab: 0 Hours).
Scheduled when student is ready to begin the thesis. No credit until thesis is accepted. Prerequisite: Approved research methodology course and consent of major professor.

ACRS 5302. Leadrshp for Agri & Consum Res. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Study and application of leadership theories and styles related to functioning in agricultural and consumer resources leadership positions.

ACRS 5306. Instruction in Agricultural Mechanics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Field based applications and methods of teaching agricultural mechanics. This course will emphasize the organization, management, service, and use of equipment in the instruction of agricultural mechanics. Students will also apply research methodology specific to appropriate topics.

ACRS 5307. Agricultural Education Programs. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the secondary school agricultural education program. Topics include pre-employment, work-based learning, advisory committees, supervised agricultural experience programs, student leadership through FFA, and new program development. Students will also apply research methodology specific to appropriate topics.

ACRS 5310. Programmatic Leadership Development. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Field-based experiences designed to develop leadership ability for teaching, entrepreneurship, and conducting adult and youth organizations. Includes systems of record keeping. Students will also apply research methodology specific to appropriate topics.

ACRS 5311. Info Systems to ACR. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Analysis of information systems used in agricultural services and development. A study of the flow of information in and among various components of the agri-education/industry/business sectors.

ACRS 5313. Adm & Supv of Career & Tech Ed. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Theories and procedures applicable to the organization, administration, financing, and supervision of career and vocational-technical education in public and post-secondary schools. Prerequisites: Professional experience or approval of the instructor.

ACRS 5316. Prog Bldg in Career/Tech Ed. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Organization of educational programs in agriculture and family and consumer sciences on local, state, national and international levels. Prerequisite: Professional experience or approval of the instructor.

ACRS 5318. Ethical/Env Iss Agri & Con Res. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Ethical and environmental issues affecting public policy as related to agricultural and consumer resources areas, such as agricultural education, family and consumer sciences' education, AgriLife extension education, agricultural business and industry. Credit for both ANSC 5318 and A ED 518 will not be awarded. Prerequisite: Approval of instructor.

ACRS 5319. Prof Dev Agri & Consum Res. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Selected programs in agricultural education, AgriLife extension, service, development, international, or family & consumer sciences programs. Also will serve as state certifying course for cooperative part-time teacher preparation as topic justifies. Prerequisite: Professional experience or apporval of instructor. May be repeated for credit.

ACRS 5320. Prg& Pers Coop TX Agri Ext Ser. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Enabling legislation, program areas, teaching methods used, staffing patterns, funding, and program administration of the Cooperative Extension Service. Special emphasis on entry-level positions and responsibilities of each.

ACRS 5321. Int'l Prog Ag & Cons Resour Ed. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The function of international agencies, organizations, foundations, religious groups, and education concerning the improvement of the quality of life for peoples in developing nations through improved, sustained agricultural production and consumer resources understanding and application. Prerequisite: Admission to College of Graduate Studies.

ACRS 5330. Teaching Agriculture at the Postsecondary Level. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Methods and techniques of teaching agricultural subjects at the college/university level. Topics include course preparation, presentation, evaluation and post-secondary educational philosophy.

ACRS 5331. Professional Communication. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Advanced discussion of techniques for communicating technical information to a variety of audiences. Topics covered will include written and oral communication, using numerous formats. Prerequisite: Graduate standing.

ACRS 5340. Methods of Tech Change. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Methods of planning and implementing change in agricultural and consumer resources techniques and practices. Special emphasis on the role of the agricultural and family and consumer sciences' change agents and the effects of change on society and the economy. Prerequisite: Approval of the instructor.

ACRS 5350. Supervised Agricultural Experience Project Management. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Specialized feeding, training, and fitting livestock for utilization in the approved agricultural education supervised agricultural experience (SAE) program. Topics include identifying, selection, and evaluating all aspects of the livestock and stock-show industries. Students will also apply research methodology specific to appropriate topics. Credit will not be awarded for both AGSD 4350 and ACRS 5350.

ACRS 5360. Advanced Electronic Field Production for Agricultural Communications. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
This course provides advanced experience in agricultural television field production and electronic news gathering. Students will master video production skills such as script writing, storyboarding, camera operation, and video editing in an agricultural setting. Students will act as executive producers working with undergraduates enrolled in ACOM 4350.

ACRS 5380. Advanced Agriculture and Food Policy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of agriculture and food policy at the state and national levels. Topics include the processes to develop agriculture and food policy, identifying the actors involved in policy decisions, how local, national, and international agriculture and food policy impacts and is impacted by producers, how policy is shaping/being shaped by the larger food system, major agricultural and food policies in the U.S., including the Farm Bill, identifying linkages between the agriculture industry and agricultural policy and politics in Texas and across the United States, and key contemporary agricultural policy issues.

ACRS 5385. Intro Seminar Agri & Con Res. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 0 Hours).
Group study and discussion of current developments in graduate education related to agricultural and consumer resources. Special emphasis given to development and maintenance of professional relationships and responsibilities in conducting a graduate education experience. Prerequisite: Graduate classification.

ACRS 5390. Advanced Topics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Selected topics in agricultural education offered as needed and dependent upon departmental, faculty, and student interest. May be repeated as topics vary.

ACRS 5396. Analysis of Social Research Data. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will provide instruction and application in analyzing information specific to social research in agricultural and consumer resources. The students will calculate measures utilized in descriptive, correlational, and differential statistics. Students will also format data, build syntax commands, and interpret output from SPSS programs.

ACRS 5397. History, Philosophy, & Policy of Agricultural & Extension Education. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The course is an investigation in philosophical perspectives that shaped the current theories and practices of agricultural and extension education. Students will research and report on specific historical events, legislation, and pioneers that shaped agricultural and extension education policy.

ACRS 5398. Philo, Interp, Appl, of Res. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Studies designed to acquaint students in agricultural research techniques and demonstration related to the classroom, laboratories, work experience, and extension and adult education activities in agricultural programs. Basic concepts concerning interpretation and analysis of research data.

ACRS 5399. Agricultural and Consumer Resources Capstone. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Supervised professional activities in agricultural and consumer resources education/clinical teaching/AgriLife extension/industry/business settings. Emphasis is placed on the student's involvement in successful practices in the area of professional interest. Experience may be on the local, state, national, or international level. May be repeated once for credit. Prerequisite: graduate standing.

Division of Agribusiness and Agricultural Economics

Division of Agribusiness and Agricultural Economics
Joe W. Autry Agriculture Building, Room 105
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Students can gain a deeper knowledge of their chosen career field and further develop analytical skills in agricultural economics, business planning, credit and finance, and resource allocation in production and marketing in production agriculture and agribusiness.

This division offers the following program options:

- Agricultural Economics -Thesis Track
- Agribusiness Non-Thesis Track

A non-thesis student can complete the program as quickly as a year, minimizing the time away from work and maximizing the long-term return on investment.

Program faculty are dedicated to our graduate students and will work closely with them to develop a master's degree plan tailored to their career goals and personal needs. They can attend classes 100% online, or a hybrid of face-to-face and online, which allows them to continue to work while completing degree program requirements at a distance.

Agricultural Economics is an applied field of economics concerned with the application of economic theory in optimizing the production and distribution of food and fiber products. Agricultural economics includes a variety of applied areas, having considerable overlap with conventional economics. Agricultural economists' contributions to research include econometrics, development economics, production economics, marketing, agricultural policy, and environmental economics. Thus, agricultural economics influences food policy, agricultural policy, and environmental policy.

Master of Science in Agricultural Economics

AGEC 5301	Environmental Issues and Agricultural Policy	3
AGEC 5310	Advanced Farm and Ranch Management	3
AGEC 5312	Advanced Production Economics	3
AGEC 5314	Advanced Agricultural Marketing	3
AGEC 5333	Management Practices of Agribusiness	3
AGEC 5399	Agricultural Economics Capstone	3
FINC 5307	Financial Management	3
or FINC 5306	Financial Markets and Institutions	
Total Hours		**21**

Non-thesis Agribusiness Track (30 hours)

AGEC 5086	Agricultural Economics Problems	3
AGEC 5317	Adv. Applied Quantitative Methods	3
or ECON 5311	Econometrics and Forecasting	
Electives - 5000 level from COAE, COB, or must be approved by committee		3
Total Hours		**9**

Thesis Track (36 hours)

AGEC 5088	Thesis	6
ECON 5311	Econometrics and Forecasting	3
Choose 6 hours from the following options:		6
Electives - 5000 level from COAE, COB, or must be approved by committee		
Total Hours		**15**

Courses

AGEC 5086. Agricultural Economics Problems. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 1-6 Hours).
Advanced independent study and research in agricultural economics topics. A written report will be submitted to the supervising professor. Prerequisite: Approval of instructor of record.

AGEC 5088. Thesis. 1-6 Credit Hours (Lecture: 1-6 Hours, Lab: 0 Hours).
Scheduled when student is ready to begin the thesis. No credit until thesis is accepted. Prerequisites: Approved research methodology course and consent of major professor.

AGEC 5301. Environmental Issues and Agricultural Policy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Current and emerging problems in economics of environmental issues relating to agriculture and agribusiness firms. Examination of policy issues, institutions, and legal and political constraints in relation to environmental quality and agricultural resources. Prerequisites: Principles of Macroeconomics and Intermediate Microeconomics, or approval of instructor of record.

AGEC 5310. Advanced Farm and Ranch Management. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Economic theory and business principles applied to the organization and operation of farm and ranch businesses. Emphasis will be on farm budgeting and decision making, selecting and combining enterprises, analyzing farm investment alternatives, farm growth strategies, risk, and uncertainty. Prerequisite: Introductory course on Agricultural Marketing. Lab fee: $2.

AGEC 5312. Production & Operations Analysis. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Analysis of the production and operations function from a problem-solving and quantitative models approach. Prerequisite: Approval of instructor of record.

AGEC 5314. Advanced Agricultural Marketing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Market development concepts, practices, and strategies for food and fiber products. Causes, effects, and relationships to business and consumer economics. Strategies for price risk management in buying and selling agricultural products. Prerequisites: Intermediate Microeconomics and an introductory course on Agricultural Marketing, or approval of instructor of record.

AGEC 5317. Adv. Applied Quantitative Methods. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Advanced application of quantitative techniques used to support managerial decision-making and resource allocation. Exposure to mathematical and statistical tools (regression analysis, mathematical programming, simulation) used in economic analysis in Agribusiness. Credit for AGEC 4317 or AGEC 5317 not both.

AGEC 5333. Management Practices of Agribusiness. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An examination of the choices, decisions, strategies and organizational behavior of agribusiness firms and their management. Primary emphasis will be given to the managerial practices of food and agricultural supply firms in the agri-food industry. Prerequisites: Agricultural Finance or equivalent finance course, an introductory course in Agricultural Marketing or equivalent marketing course, and Principles of Management; or approval of instructor of record.

AGEC 5390. Advanced Topics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Studies in mathematical economics, input-output analysis, linear programming, social benefit-cost analysis, risk management, or other advanced topics as offered. Prior academic training requirements vary with topic. May be repeated once as topic varies. Prerequisite: Consent of instructor.

AGEC 5396. Analysis of Social Research Data. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Application of contingency tables, and descriptive, differential, and correlational statistics to social research data. Data formatting, syntax operations, procedure options, and interpretation of statistical program output.

AGEC 5399. Agricultural and Consumer Resources Capstone. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Supervised professional activities in agricultural and consumer resources education/clinical teaching/AgriLife extension/industry/business settings. Emphasis is placed on the student's involvement in successful practices in the area of professional interest. Experience may be on the local, state, national, or international level. May be repeated once for credit. Prerequisites: Graduate standing.

Department of Animal Science

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Master of Science in Animal Science

This degree is intended for those who have completed a Bachelor of Science degree in animal science, agricultural, or natural resource-related fields. Those with an undergraduate degree in an unrelated field may be considered for admission with the approval of a faculty mentor within the department. Undergraduate leveling courses may be required.

Acceptance into the program requires acceptance into the College of Graduate Studies, a minimum undergraduate GPA of 3.0, and acceptance by a graduate faculty mentor within the department. Conditional acceptance may be granted to students with a GPA between 2.7 and 3.0. Once accepted, students must maintain a GPA of 3.0 or higher to remain in good standing. For assistance in identifying a faculty mentor and for a required departmental application, contact the Department of Animal Science.

The student is to acquire a graduate faculty committee for advice and guidance through the completion of the MS degree, which requires 36 graduate credit hours. Students in the program will conduct original research and take 6 hours of thesis credit. An additional 30 hours of coursework, determined by the student and their committee, is flexible to allow the student to meet their individual needs within a subject area and animal species. Upon completion of their graduate coursework and project, students must take an oral comprehensive exam and defend their project.

Master of Science in Animal Science Program Requirements

ANSC 5185	Animal Science Seminar (Two semesters required for a total of 2 SCH) [1]	2
ANSC 5175	Journal Club: Topics in Animal Science	1
ANSC 5301	Experimental Design in Agriculture	3
ANSC 5088	Thesis	6
Experimental Design and Statistical Analysis (choose one of the following)		3
ACRS 5396	Analysis of Social Research Data	
BIOL 5398	Research Design and Analysis	
WSES 5360	Research Methods for Agricultural and Natural Resource Scientists	
ANSC Electives - 5000 level (must be approved by student's committee)		6
Electives - 5000 level (must be approved by student's committee)		15
Total Hours		**36**

[1] ANSC 5185 is one credit hour. Students will take this course twice for a total of two credit hours.

Master of Agriculture in Animal Production

This degree program is designed for individuals who have completed a Bachelor of Science in animal science, agriculture, or related natural resource fields. Through graduate-level coursework and hands-on field experience, students will gain advanced knowledge and specialized skills in their chosen area of emphasis, positioning them to be highly competitive within the animal industry.

Acceptance into the program requires acceptance into the College of Graduate Studies, with a minimum of 2.7 undergraduate GPA.

Students enrolled in the Master of Agriculture program are required to complete 25 credit hours of coursework, with emphasis in a concentration area aligned with their interests. In addition, students must complete a 6-credit-hour internship with a department-approved organization. Upon completion of all coursework and internship requirements, students are expected to successfully pass either the American Registry of Professional Animal Scientists (ARPAS) Exam or the American Meat Science Association (AMSA) Meat Certification Exam.

Master of Agriculture in Animal Production Program Requirements

Program Requirements [1]		
ANSC 5185	Animal Science Seminar	1
Internship Requirement		6
ANSC 5399	Internship	
ANSC 5318	Ethical/Environmental Issues in Animal Agriculture	3
ACRS 5396	Analysis of Social Research Data	3
ACRS 5331	Professional Communication	3
Any 5000-Level ANSC, BIOL, RNRM, AGEC, ACRS Course		6
Total Hours		**22**

[1] Students will also have to pass the ARPAS exam or AMSA Meat Certification exam before the degree is awarded.

Meat Science

Choose 9 Credit Hours from the Following		9
ANSC 5310	Muscle Chemistry, Ultrastructure, and Physiology	
ANSC 5314	Food Quality Assurance	
ANSC 5316	Grant Writing and Funding Aquisition	
ANSC 5338	Value-Added Processed Meats	
Total Hours		**9**

Nutrition

Choose 9 Credit Hours from the Following		9
ANSC 5324	Advanced Equine Nutrition	
ANSC 5303	Rumen Microbiology	
ANSC 5304	Ruminant Nutrition	
ANSC 5350	Laboratory Methods in Animal Research	
ANSC 5356	Non-Ruminant Nutrition	
ANSC 5365	Minerals and Vitamins in Animal Nutrition	
RNRM 5301	Advanced Grazing Management	
Total Hours		**9**

Physiology and Welfare

Choose 9 Credit Hours from the Following		9
ANSC 5308	Measuring Animal Behavior	
ANSC 5309	Animal Welfare Assessments and Audits	
ANSC 5310	Muscle Chemistry, Ultrastructure, and Physiology	
ANSC 5312	Domestic Animal Endocrinology	
ANSC 5316	Grant Writing and Funding Aquisition	
ANSC 5325	Equine Exercise Physiology	
ANSC 5328	Environmental Physiology of Farm Animals	
ANSC 5355	Animal Metabolism	
Total Hours		**9**

Reproduction

Choose 9 Credit Hours from the Following		9
ANSC 5306	Assisted Breeding Technology	
ANSC 5316	Grant Writing and Funding Aquisition	
ANSC 5312	Domestic Animal Endocrinology	
ANSC 5300	Advanced Equine Reproduction	
ANSC 5326	Advanced Physiology of Reproduction	
Total Hours		**9**

Graduate Faculty

- Barker, Samantha Dr.
- Contreras-Correa, Zully Dr.
- Guay, Kimberly Dr.
- Jones, Trinette Dr.
- Leatherwood, Jessica Dr.
- Martinez, Rafael Dr.
- Owsley, Frank Dr.
- Perez-Hernandez, Gabriela Dr.
- Rankins, Ellen Dr.

- Rosiere, Randall Dr.
- Runyan, Cheyenne Dr.
- Webb, Edward Dr.
- Wellmann, Kimberly Dr.

Adjunct professors

- Jablinski, Anne Dr.
- Reiter, Amanda Dr.

Courses

ANSC 5048. Animal Science Applied Project. 1-6 Credit Hours (Lecture: 1-6 Hours, Lab: 0 Hours).
Design, implement, and complete an independent project; integrate the knowledge and skills learned in the program; advance the application of scientific principles. Written report and oral communication of the results.

ANSC 5086. Animal Science Problems. 1-3 Credit Hours (Lecture: 0 Hours, Lab: 1-3 Hours).
Advanced studies in animal science problems and procedures. Problems assigned according to experience, interest, and needs of individual student.

ANSC 5088. Thesis. 1-6 Credit Hours (Lecture: 1-6 Hours, Lab: 0 Hours).
Scheduled when the student is ready to complete the thesis. No credit until the thesis is completed. Prerequisite: Approved research methodology course and approval of the instructor of record.

ANSC 5090. Special Topics in Animal Science. 3 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
Selected topics in Animal Sciences offered as needed and dependant upon departmental, faculty, and student interests. May be repeated as topics vary. Instructor approval required prior to registration.

ANSC 5175. Journal Club: Topics in Animal Science. 1 Credit Hour (Lecture: 1 Hour, Lab: 0 Hours).
Perform critical evaluation of scientific writing and published works, assess the quality of the results, and become familiar with the publication process. This course is intended to provide a multi-specie discussion relevant to animal sciences research. Credit cannot be awarded for both ARSC 6175 and ANSC 5175.

ANSC 5185. Animal Science Seminar. 1 Credit Hour (Lecture: 1 Hour, Lab: 0 Hours).
Graduate seminar with content varying according to student and curricular needs. May be repeated for a total of three credit hours. Prerequisite: Graduate classification.

ANSC 5300. Advanced Equine Reproduction. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
Through a comprehensive exploration of current research in equine reproductive health, stallion fertility, mare cyclicity, and pregnancy, students will gain a profound understanding of the physiological processes governing reproduction in horses. Emphasis is placed on bridging the gap between theory and practice, while mastering common assistive breeding technologies, offering students a holistic perspective on equine reproductive science. Credit cannot be awarded for both ARSC 6300 and ANSC 5300.

ANSC 5301. Experimental Design in Agriculture. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Common and anomalous designs encountered in conduct of research in the agricultural and environmental sciences. Proper analysis of these designs and common pitfalls in experimental design. Students are expected to enter with a cursory knowledge of introductory statistics.

ANSC 5302. Forage Biology and Physiology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Biology of forage growth, metabolic pathways of the plant, and physiological response to stressors that contribute to pasture management. Credit will not be awarded for both ANRS 6332 and ANSC 5302.

ANSC 5303. Rumen Microbiology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Scientific and practical evaluation of the rumen microbiome, with emphasis on functional classes and substrate preferences, and its impact on animal nutrition and performance. Credit will not be awarded for both ANRS 6303 and ANSC 5303.

ANSC 5304. Ruminant Nutrition. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Survey of current knowledge and concepts in ruminant physiology and biochemistry, their literature and experimental basis and relation to current and future practice and investigation. Credit will not be awarded for both ANRS 6334 and ANSC 5304. Prerequisites: A course in Animal Nutrition and graduate classification.

ANSC 5306. Assisted Breeding Technology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Reproductive principles and techniques in modern breeding programs for farm livestock and other species. Prerequisites: Graduate Standing.

ANSC 5308. Measuring Animal Behavior. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An advanced course in the principles and methods of quantitative studies of behavior, with an emphasis on techniques of observation, recording, and analysis. Credit will not be awarded for ANRS 6308, ANSC 5308, and WSES 5308.

ANSC 5309. Animal Welfare Assessments and Audits. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Basic components of animal welfare assessments, review of current industry assessment tools and animal welfare audits. Credit will not be awarded for both ANRS 6339 and ANSC 5309. Prerequisite: Graduate status.

ANSC 5310. Muscle Chemistry, Ultrastructure, and Physiology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of muscle development, structure, composition, growth, mechanisms of contraction, and rigor as related to livestock and meat production. Prerequisite: Graduate standing.

ANSC 5311. Data Management & Analysis in Animal Science. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Data collection practices, organization, and modification in various computer programs suited to the experimental designs used in animal science. Methods of data entry into statistical software, coding, and appropriate analyses. Students are expected to enter with a cursory knowledge of introductory statistics. Prerequisite: Graduate classification and previous coursework in statistics.

ANSC 5312. Domestic Animal Endocrinology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of cell communication through endocrine, autocrine, paracrine, and neuroendocrine secretions. Detailed physiological and biochemical composition of hormones with special reference to domestic animal species. Students who successfully complete this course cannot receive credit for ARSC 6312. Prerequisite: Graduate student standing.

ANSC 5314. Food Quality Assurance. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The basis behind food quality control/assurance is discussed along with its application to various food systems to control and improve the quality and safety of our food supply. Credit will not be awarded for ANSC 4341 and ANSC 5314. Lab fee: $2.

ANSC 5315. Animal Growth and Development. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the processes related to animal growth. Emphasis on cellular changes allowing for muscle, bone and adipose tissue growth as well as the role and functions of hormones related to development and age-related adaptation. Composition of muscle, bone, and adipose tissue in market animals will be discussed. Credit will not be awarded for ANRS 6325 and ANSC 5315. Prerequisites: A course in General Animal Science and approval of instructor.

ANSC 5316. Grant Writing and Funding Aquisition. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A course in terminology and processes associated with grant writing and the acquisitions of research funds.

ANSC 5317. Advanced Livestock Production. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Overview of beef, dairy, swine, small ruminant and poultry production systems and their applications. Modern concepts, ideas, and methodology associated with the application of technology to reproduction, breeding, health, nutrition and nutrient utilization, across various management schemes. Prerequisite: Graduate student classification.

ANSC 5318. Ethical/Environmental Issues in Agriculture. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Ethical and environmental issues affecting public policy as related to agrieducation/industry/business. Credit for both ANSC 5218 and AGCR 5318 will not be awarded. Prerequisites: Approval of instructor.

ANSC 5319. Biotechnology in Agriculture. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of modern biotechnology in agriculture today. This course will explore important advancements and tools in fields such as genetics, agronomy, and bioinformatics. It will also examine the legal constraints and ethical debates that surround these technologies. Credit will not be awarded for both ANSC 4319 and ANSC 5319.

ANSC 5324. Advanced Equine Nutrition. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Principles of digestive physiology and nutrition unique to equine species; integration of scientific principles into feeding management systems of horses; review and evaluation of current research in equine nutrition. Credit cannot be awarded for both ARSC 6354 and ANSC 5324. Prerequisite: Graduate standing; previous coursework in nutrition.

ANSC 5325. Equine Exercise Physiology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Studies of the influence of training and conditioning on muscle physiology, cardiovascular physiology, the biomechanics of locomotion, and energy utilization. Fundamental rehabilitation and treatment of sports injuries. Students can not receive credit for both ANSC 3325 and ANSC 5325. Prerequisite: Instructor approval.

ANSC 5326. Advanced Physiology of Reproduction. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of physiology of reproduction with focus on historical and current research in reproductive neuroendocrinology, male fertility, female cyclicity, and pregnancy. This course will discuss research in rodent models, rabbits, sheep, cattle, pigs, and primates. Students who successfully complete this course cannot receive credit for ARSC 6326. Prerequisite: ANSC 5312.

ANSC 5328. Environmental Physiology of Farm Animals. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Environmental influence on biological rhythms; body temperature regulation; heat sources and conserving mechanisms; feed intake, behavior, growth and development and reproduction in farm animals. Credit given for only ANSC 5328 OR ANSC 4308. Prerequisite: Graduate classification.

ANSC 5338. Value-Added Processed Meats. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The application of scientific principles and practices to further processed meat products. Interrelationships among tissue characteristics, ingredients, handling practices, processing technologies and storage conditions as they affect the quality, safety, and stability of muscle foods.

ANSC 5350. Laboratory Methods in Animal Research. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Skill development in laboratory techniques and analysis related to animal science research. Application of live animal data collection. Introduction to institutional animal care and use protocols and ethical use of animals in research. Prerequisites: Graduate standing; instructor approval. Lab fee: $2.

ANSC 5355. Animal Metabolism. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The course is structured to provide an overview of various regulatory mechanisms of metabolism and changes due to exercise, stress, pregnancy, nutrient imbalance, disease and toxic effects. Credit will not be awarded for both ANRS 6345 and ANSC 5355. Prerequisites: Graduate standing; 3 hours of animal or human nutrition AND 3 hours of anatomy and physiology OR department head approval.

ANSC 5356. Non-Ruminant Nutrition. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Advanced course in nutritional science focusing in advanced topics in intergrated nutrient metabolism; advanced digestive physiology, nutritional requirements and nutritional imbalances and subsequent disease states in non-ruminant animals. Prior coursework in metabolism or biochemistry is recommended. Credit will not be awarded for both ANRS 6356 and ANSC 5356. Prerequisite: ANSC 5355.

ANSC 5360. Lactation Physiology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Systematic overview of lactation physiology using dairy cattle as the main model. Course topics will include mammary gland anatomy, milk secretion, mammary gland development and disease impacts. Credit will not be awarded for both ANRS 6361 and ANSC 5360. Prerequisites: Graduate standing.

ANSC 5365. Minerals and Vitamins in Animal Nutrition. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An in-depth study of vitamin and mineral chemistry, metabolism, interrelationships, and requirements for production in livestock animals. Prerequisite: Graduate standing.

ANSC 5380. Research and Writing for Agriculture. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Preparation of writing samples, technical reviews, and/or professional manuscripts related to various topics in agriculture. Prerequisites: Approved research methodology course and approval of instructor of record.

ANSC 5399. Internship. 3 Credit Hours (Lecture: 1 Hour, Lab: 8 Hours).
Prepared and supervised work experience in an Animal Science-related position with a public or private business organization. May be repeated for a total of 6 hours credit. Prerequisite: Approval of the student's graduate committee. Field experience fee $50.

Department of Wildlife and Natural Resources

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The Department of Wildlife and Natural Resources is dedicated to understanding and managing the earth's ecosystems. Our mission is to prepare students to confront the environmental challenges of present and future generations by sustainably managing natural resources through multidisciplinary teaching, experiential learning, and research.

Master of Science in Agricultural & Natural Resources

This degree is intended for those who have completed a Bachelor of Science degree in agricultural or natural resource related fields. Those with an undergraduate degree in an unrelated field may be considered for admission with approval of a faculty mentor within the department; undergraduate leveling courses may be required. This degree may be attractive to certain students who desire advanced course work to further qualify for certain types of public or agency employment or to enhance advancement opportunities in their present employment. It may also offer a major advantage for students who plan further graduate study at the PhD level.

Acceptance into the program requires acceptance into the College of Graduate Studies, a minimum of 2.5 undergraduate GPA, and acceptance by a graduate faculty mentor within the department. For assistance in identifying a faculty mentor, contact the Department of Wildlife and Natural Resources. Once accepted, students must maintain a GPA of 3.0 or higher to remain in good standing.

There are two available options within the Master of Science in Agricultural and Natural Resources program: the research (thesis) track, and professional (non-thesis) track. The option chosen depends on academic and career goals of the student. Either option requires the student to acquire a graduate faculty committee for advice and guidance through the completion of the MS degree. To graduate, students must complete 36 graduate credit hours as prescribed by the committee and pass a comprehensive examination.

The research track is intended for those who may pursue a doctoral degree in the future, or are interested in a career path that prefers knowledge of the research process. This track involves conducting an original research project under the direction of a graduate faculty member and the preparation of a thesis in addition to course work. Because of the research requirement, 6 of the 36 credit hours may be taken as thesis hours. Students are required to defend their research and complete a comprehensive oral examination.

The MS professional track students are held to the same academic standards as thesis track students, but take additional coursework in lieu of an original research project. Experiential learning activities such as an internship or teaching practicum may be required. The comprehensive examination for the professional track is a written examination administered by the graduate committee and may include an oral examination as a follow-up.

Master of Science in Agricultural & Natural Resources Program Requirements

WSES 5302	Natural Resource Ecology	3
WSES 5380	Research Writing for Agricultural and Environmental Science	3
WSES 5360	Research Methods for Agricultural and Natural Resource Scientists	3
WSES 5085	Seminar	1-3
Total Hours		**12**

Professional

WSES 5084	Professional Practice	3
12 Hours of WSES 5XXX (excluding WSES 5087 and WSES 5088)		12
Graduate-level electives approved by the student's graduate committee		9
Total Hours		**24**

Research

WSES 5301	Principles of Research in the Natural Resource Sciences	3
WSES 5088	Thesis	6
Quantitative analysis courses approved by thesis committee (choose one):		3
BIOL 5398	Research Design and Analysis	
ANSC 5301	Experimental Design in Agriculture	
ACRS 5396	Analysis of Social Research Data	
Or other approved quantitative analysis course		
9 Hours of WSES 5XXX [1]		9
Graduate-level electives approved by the student's graduate committee		3
Total Hours		**24**

Graduate Faculty

- Breeden, Jeff Dr.
- Cummings, Hennen Dr.
- Kafley, Hemanta Dr.
- Mathewson, Heather Dr.
- Mitchell, Adam Dr.
- Muir, James Dr.
- Murray, Darrel Dr.
- Schwertner, T. Wayne Dr.

Courses

WSES 5084. Professional Practice. 1-6 Credit Hours (Lecture: 1-6 Hours, Lab: 0 Hours).
This supervised professional practice will involve the student in practical activities in the agricultural or natural resource sciences. The experience is tailored to the to the student's interests, and academic and career goals. Experience may include teaching, independent research, internship, or other applied learning experience. May be repeated once for credit. Prerequisite: Graduate standing.

WSES 5085. Seminar. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 0 Hours).
A graduate seminar with content varying according to the needs and experiences of students and the instructor of record. May be repeated as content varies. Prerequisites: Graduate standing.

WSES 5086. Problems in Natural Resource Sciences. 1-6 Credit Hours (Lecture: 1-6 Hours, Lab: 0 Hours).
Advanced studies in wildlife, sustainability, ecosystem sciences, and the natural resources. Problems assigned according to experience, interest, and needs of the individual student. May be repeated for credit as topics vary.

WSES 5087. Research. 1-6 Credit Hours (Lecture: 1-6 Hours, Lab: 0 Hours).
Graduate students conduct original research on a variety of topics in the natural resource sciences toward a graduate thesis. Designed for students who will be conducting field research away from the Stephenville campus. Course will be graded as satisfactory or unsatisfactory. Prerequisites: Graduate standing, with a major in MS-ANRS; permission of the instructor.

WSES 5088. Thesis. 1-6 Credit Hours (Lecture: 1-6 Hours, Lab: 1-6 Hours).
Scheduled when the student is ready to begin the thesis. No credit until the thesis is completed. Prerequisites: Approved research methodology course and approval of instructor of record.

WSES 5090. Special Topics in the Natural Resource Sciences. 1-6 Credit Hours (Lecture: 1-6 Hours, Lab: 0 Hours).
Selected topics in wildlife, sustainability, ecosystem science, or the natural resources as needed and dependent upon department, faculty, and student interests. May be repeated as topics vary. Prerequisite: Approval of the instructor.

WSES 5301. Principles of Research in the Natural Resource Sciences. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is a thorough treatment of the philosophy of science as it applies to the ecological, environmental, and natural resource sciences. Starting from the historical foundations of science, students will become familiar with the logical underpinnings of ecological research, including epistemology, the nature of theory, hypothesis testing, and the logic of study design. This course will provide students with a logical understanding of the scientific process, prior to enrollment in more quantitative treatments of study design and data analysis. Students will be required to prepare a complete research proposal in the course. Credit will not be awarded for both ANRS 6301 and WSES 5301. Prerequisite: graduate classification.

WSES 5302. Natural Resource Ecology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Advanced relationships of ecological principles to natural resource, wildlife, and range conservation and management. Ecology's historical context; evolution; the niche; intraspecific and interspecific competition; vegetation succession; predator-prey dynamics; and spatial ecology. Credit will not be awarded for both ANRS 6302 and WSES 5302. Prerequisites: Graduate standing with a major in MS-ANRS or MS-BIOL; and successful completion of a general ecology course.

WSES 5303. Graduate Field Studies in Ecology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Students explore various facets of ecology during extended field trips to various locations in Texas and the other United States. Topics may vary depending upon location. May be repeated for credit when topics vary. This course requires an extended field trip at the student's expense (in addition to the field experience fee). Prerequisite: graduate classification, and enrollment by permit only and with approval of the instructor.

WSES 5304. Wildlife-Habitat Relationships. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An advanced study of habitat and wildlife-habitat interactions. This is a graduate level class for individuals with a basic understanding of ecological and wildlife management concepts. Involves review and discussion of important articles on this subject. Includes advanced discussion of concepts such as plant succession, niche, carrying capacity, habitat measurements, and habitat management. Students will learn how habitat and succession may be manipulated to best manage wildlife populations; also how browsers and grazers may affect their habitats. Credit will not be awarded for both ANRS 6304 and WSES 5304. Prerequisites: Graduate standing with a major in ANRS-MS or BIOL-MS and the successful completion of a course in general ecology.

WSES 5305. Cross-cultural Natural Resource Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Designed to expand the student's understanding of natural resource management in cross-cultural settings. Prepare students in social science, agricultural, environmental, or wildlife management for careers or assignments in and outside the USA that require multi-cultural understanding. Facilitate the student's adaptation of management skills and knowledge in diverse natural, legal and cultural settings. Content and assignments are flexible so the student can focus on the natural resource and culture of greatest interest. Prerequisites: Graduate standing.

WSES 5306. Fire Ecology. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
This course will address the ecological role of fire in natural systems, rangelands, including grasslands, shrublands, woodlands, and forests; adaptations of plants and animals to fire; long-term controls on wild fire; use of fire as an ecosystem management tool, with aspects of wildland firefighting; and prescribed burning, including fire behavior, fuels, weather, politics and policy. Students will gain hands-on prescribed burning experiences as circumstances and weather permit. Credit will not be awarded both for ANRS 6306 and WSES 5306. Prerequisites: Graduate standing with a major in MS-ANRS, MS-ENVS, or BIOL-MS; and successful completion of a course in general ecology. Lab fee: $2.

WSES 5307. Global Natural Resource Issues. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Exploration of the environmental, political, social, and economic factors affecting the use, management, and protection of natural resources worldwide. Impacts of colonization, migration, international development, globalization, energy use, tourism, climate change, and various political systems on natural resource use and management will be analyzed and debated. On-going class discussions to integrate and contextualize research on international natural resource issues. Prerequisites: Graduate standing.

WSES 5308. Measuring Animal Behavior. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An advanced course in the principles and methods of quantitative studies of behavior, with an emphasis on techniques of observation, recording, and analysis. Credit will not be awarded for ANRS 6308, ANSC 5308, and WSES 5308.

WSES 5309. Plant-Animal Interactions. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Plant-animal and animal-plant interactions are the basis for many ecosystem functions. This course tailors the study of those interactions to student interests from insects to ungulates, aquatic to terrestrial, managed to natural systems, and individual species to ecosystems. Credit will not be awarded both for ANRS 6309 and WSES 5309. Prerequisites: Graduate standing with a major in MS-ANRS, ANSC-MS, or MS-BIOL, and successful completion of an ecology course.

WSES 5310. Presentation of Scientific Findings. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to teach graduate students in the natural resource sciences and allied fields the principles and practices of presenting the results of scientific research. Course focus will be on preparing and delivering oral research presentations and research posters; and the preparation, submission, and publication of scientific journal articles, technical bulletins, and research reports. Prerequisite: Admission into the Research Track of the MS Program in Agricultural and Natural Resource Sciences and a grade of B or better in BIOL 5380, or approval of the Department Head.

WSES 5311. Ecological Pest Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An advanced study of the principles of integrated pest management emphasizing the ecologically sound use of chemical, biological, cultural, and physical control tactics to manage pests. Students will concentrate on one or few commodities, of their choice, and develop a detailed best management plan. Credit will not be awarded both for ANRS 6311 and WSES 5311. Prerequisites: Graduate standing with a major in MS-ANRS and successful completion of a course in general entomology.

WSES 5313. Vegetation Measurement, Inventory, and Monitoring. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Advanced vegetation sampling, measurement, monitoring, inventory, study design, and quantitative and statistical analysis. Assessment of range condition and forest health based on understanding ecological processes. Hands-on, field-based laboratory. Credit will not be awarded both for ANRS 6313 and WSES 5313. Prerequisites: Graduate standing with a major in ANRS-MS or BIOL-MS; and successful completion of a course in statistics, and a course in plant identification.

WSES 5314. Veterinary Entomology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Advanced studies in the classification, biology, and management of arthropods associated with livestock and wildlife systems. Emphasis will be placed on arthropod vectors of pathogens and their role in the epidemiology and management of disease. Credit will not be awarded both for ANRS 6314 and WSES 5314.

WSES 5315. Insect Taxonomy and Systematics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Advance study of the taxonomy and identification of insects and other arthropods. Students will utilize various collecting techniques and dichotomous keys to obtain and identify arthropods. Credit will not be awarded both for ANRS 6315 and WSES 5315.

WSES 5316. Grant Writing and Funding Acquisition. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A course in terminology and processes associated with grant writing and the acquisitions of research funds. Credit will only be awarded for one of the following: ANRS 6316, ANSC 5316, and WSES 5316.

WSES 5317. Population Ecology. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Advanced course in population biology, including theoretical and analytical applications focused on demographic rates, population growth, predator-prey relationships, and competition. Credit will not be awarded for both ANRS 6317 and WSES 5317.

WSES 5318. Spatial Ecology and Conservation Modeling. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
The main objective of this course is to develop student's in-depth understanding of spatial ecology as it pertains to landscape-level natural resource conservation and management problems. The course will focus on developing critical theoretical and practical skills to understand spatial patterns and processes that impact interacting ecological communities in various different ways. The ultimate purpose of this course is to enable students examine and tackle issues inherent in landscape management for preserving species and ecological communities. Credit will not be awarded for WSES 4318 and WSES 5318. Prerequisite: Undergraduate general ecology or equivalent course; undergraduate introductory GIS course or equivalent.

WSES 5320. Advanced Topics in Ecosystem Biogeochemistry. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Multidisciplinary analysis of energy and nutrient transfers within terrestrial ecosystems. Examination of processes system interactions between the atmosphere, biosphere, lithosphere, and hydrosphere.

WSES 5331. Professional Communication. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Advanced discussion of techniques for communicating technical information to diverse audiences. Topics covered will include written and oral communication, using numerous formats. Prerequisite: Graduate standing.

WSES 5341. Southern African Ecology and Culture. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Ecology of southern Africa, including climate, soils, vegetation, and wildlife. Ecological interactions with development, agriculture, and tourism. Identification and ecology of bird and large mammal species. Conservation of rare, threatened, and endangered species. Culture, politics, and history from the pre-Colonial Period through today, with emphasis a focus on their effects on wildlife and ecosystem management of natural resources. Focuses mainly on South Africa, Botswana, Zambia, and Namibia.

WSES 5342. Study Abroad. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Conducted at various domestic and international locations for extended periods (frequently outside the United States). Hands-on activities and experiences in agriculture and natural resources. Topics will vary. Enrollment in this course requires a significant study abroad program fee.

WSES 5350. Pedology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Topics selected from studies of soil-forming processes, soil-geomorphic relations, mineral weathering, new developments in soil classification, and development of pedologic theory. Topics vary from year to year. May be repeated one time for credit. Prerequisites: Graduate standing with a major in MS-ANRS or MS-ENVS, and the successful completion of a soil science course.

WSES 5360. Research Methods for Agricultural and Natural Resource Scientists. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Research design, database management, application and evaluation of statistics and statistical modeling approaches, inferences, and presentation of results. Introduction to programming language for statistical computing and graphics. Applicable to students interested in research at the individual or population level, such as observational, behavioral, or experimental studies conducted in the field or laboratory. Basic understanding of statistical analyses strongly recommended. Credit will not be awarded for both ANRS 6360 and WSES 5360. Prerequisites: Graduate standing with a major in MS-ANRS, MS-BIOL, MS-ENVS, or MS-ANSC, and successful completion of a biostatistics course.

WSES 5380. Research Writing for Agricultural and Environmental Science. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Preparation of writing samples, technical reviews, and/or professional manuscripts related to various topics in agriculture or environmental sciences. Credit will not be awarded for both ANRS 6380 and WSES 5380. Prerequisites: Graduate standing with a major in MS-ANRS, MS-BIOL, MS-ENVS, or MS-ANSC.

WSES 5405. Ecological Modeling for Natural Resource Management. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
An advanced course in the use of computer simulations to model and analyze ecological systems. Based on a firm foundation of system theory, the course addresses the conceptual design, building, evaluation, and testing of simulation models; and the use of models to answer ecological questions. Credit will not be awarded for both ANRS 6405 and WSES 5405.

WSES 5410. Genomics. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
Technological advancements in DNA sequencing are producing a much more complete picture of how diverse, ubiquitous, and important microbes are in all living systems. This course will provide students with an overview of the roles that microbes play in human health, agricultural production, and ecosystem functionality. A laboratory component will include massively parallel DNA sequencing and microbial community analysis of niche environments utilizing millions of DNA sequence tags. Prerequisite: BIOL 3407 or equivalent. Lab fee: $2.

Dr. Sam Pack College of Business

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Welcome to Tarleton State University's Dr. Sam Pack College of Business, proudly accredited by AACSB—an honor held by less than 6% of business schools worldwide. This distinction ensures our programs, including the Master of Business Administration (MBA), meet the highest standards of academic excellence and real-world relevance. Through a transformative learning environment, we empower students with the knowledge, skills, and ethical foundation to excel in dynamic global markets, while enhancing value for alumni, employers, and communities alike.

Mission Statement

The Dr. Sam Pack College of Business empowers all learners with the knowledge, skills, and ethical principles to thrive in the global economy. Through faculty and student interactions we prepare leaders who positively impact organizations, foster economic growth, and contribute to their communities.

Vision

To develop innovative, principled, and globally minded business leaders who succeed in a wide range of business environments. To provide a dynamic learning environment that includes practical experience, scholarship, and skills to prepare individuals for real-world challenges.

Values [1]

- **Collaboration:** The value of collaboration refers to respect, support network, mentorship, teamwork, service, and involvement. It signifies a focus on considering and meeting the needs and interests of various stakeholders, including students, faculty, staff, and the wider community.
- **Leadership:** The value of leadership includes integrity, courage, vision, innovation, and objective decision-making. It reflects an aspiration to develop and equip individuals as effective leaders who positively impact the business world and beyond.
- **Diligence and Persistence:** We encourage our students to approach challenges with determination and unwavering persistence. Through hard work and dedication, they learn that overcoming obstacles is not just a part of the journey but a critical component of personal and professional growth.

1. Aligns with United Nations (U.N.) Sustainable Development (https://sdgs.un.org/goals/) goals 4: Quality Education; 8: Decent Work and Economic Environment; and 9: Industry, Innovation, & Infrastructure.

Accreditation

Tarleton State University's Dr. Sam Pack College of Business boasts full accreditation from AACSB, the leading accrediting body for business colleges worldwide. This prestigious recognition is granted to less than 6% of colleges of business globally. It is noteworthy that the entire university holds regional accreditation from SACSCOC, underscoring the institution's commitment to meeting high academic standards across all its academic disciplines.

- The Association to Advance Collegiate Schools of Business (AACSB) (https://www.aacsb.edu/accredited/t/tarleton-state-university/)
- Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) (https://www.sacscoc.org/)

Departments and Programs

Policies for graduate programs in the Dr. Sam Pack College of Business (DSPCOB) are developed by the DSPCOB Dean, the Dean of the College of Graduate Studies, and the Graduate Council. The Dean of the Dr. Sam Pack College of Business is responsible for maintaining consistent policies and standards governing graduate programs in business. The following administrative units hold direct authority for administering the programs, and the graduate degree programs offered in the Dr. Sam Pack College of Business include:

- Department of Accounting, Finance and Economics (https://catalog.tarleton.edu/grad/businessadministration/accountingfinanceandeconomics/)
  - Master of Accounting (MAcc)
- Department of Management (https://catalog.tarleton.edu/grad/businessadministration/management/)
  - MBA
  - MS-Human Resource Management
  - MS-Logistics and Supply Chain Management
  - MS-Management
- Department of Marketing and Computer Information Systems (https://catalog.tarleton.edu/grad/businessadministration/marketingandcomputerinformationsystems/)
  - MS Information Systems
  - MS-Marketing

All questions of policies, appeals, and petitions regarding the operation of graduate programs in business should be directed to the Dean of the Dr. Sam Pack College of Business and submitted through the appropriate DSPCOB department head.

Admission Requirements

Admission to one of the Dr. Sam Pack College of Business graduate programs is a two step process. First, applicants must be admitted to the College of Graduate Studies. Once admitted to the College of Graduate Studies, applications are forwarded to the Dr. Sam Pack College of Business for evaluation based on the specific program applied for. To be granted admission, the applicant must:

- Application:
  - Submit your online graduate application by choosing your desired major in the drop-down menu on the application page (https://tarletonstate.force.com/grad/TX_SiteLogin/?startURL=%2Fgrad%2FTargetX_Portal__PB).
  - Pay a $50 non-refundable processing fee (https://epay.tarleton.edu/C20203_ustores/web/product_detail.jsp?PRODUCTID=203)
  - Submit an essay (600 words or less) addressing your purpose and goals for pursuing graduate school (NOTE: If you are interested in utlimately pursuing a doctorate, you should 1) consider potentially pursuing a thesis option if applicable to your desired program and 2) addressing this in your essay to more easily identify your future academic interests)
  - For priority consideration, please submit your application at least one month prior to the first class day. This allows sufficient time for all required documents to be received and processed before late registration.
  - The regular deadline for consideration of your application is five days prior to the start of classes. Some graduate departments have earlier application deadlines. Please check with your program for those dates.
- Official Transcripts: Request official academic credentials from **each of the colleges and universities** you have attended and submit them using one of the following methods.
  - Mail sealed, official transcripts to:
  - The College of Graduate Studies
  - Box T-0350
  - Stephenville, TX 76402

- Request that the awarding institution email them to grad-docs@tarleton.edu.
- Drop off your sealed, official transcripts directly to the College of Graduate Studies Office (https://map.tarleton.edu/?s/) during regular business hours.
- **Note:** If you attended a foreign college or university, you will need to submit a course by course transcript evaluation (https://www.tarleton.edu/graduate/future/international/#transcripts).

- Test Scores: Applicants with an undergraduate GPA of 3.0 or higher overall or within the last 60 hours are **exempt from submitting GMAT/GRE scores**. Should you need to submit test scores or desire to submit test scores to achieve full admission:
  - Request that the testing agency send official test score reports (GMAT (http://www.mba.com/us/?WT.mc_id=55.00821&utm_source=GMACDomain&utm_medium=Redirect&utm_campaign=GMAT_domain&a=1) or GRE (http://www.ets.org/gre/)) to the College of Graduate Studies at Tarleton State University. Test requirements are program specific, and may not be required for all applicants. View a list of program-specific requirements (https://www.tarleton.edu/graduate/future/program-requirements/).
  - Tarleton's testing codes for agency use are:
  - GRE – 6817 (http://www.ets.org/gre/)
  - MAT – 2241 (http://www.pearsonassessments.com/postsecondaryeducation/graduate_admissions/mat.html)
- As part of the admission process, learners may need to fulfill prerequisites (leveling requirements) for the MAAC, MBA, and MS-HRM based on their undergraduate preparation. The specific requirements will be communicated to individuals during the admission process.

Leveling Requirements for the Graduate Programs

If a student does not have either business experience or a business undergraduate degree in the graduate course of study, the student may have to take leveling modules to catch up with the materials being taught in the graduate courses.

The leveling modules are provided by contract services. The student should contact one of the providers on the spreadsheet link below to study the leveling material required to enroll in the graduate program.

The MBA program does not require formal leveling coursework. However, students are expected to demonstrate proficiency in core foundational business competencies, including accounting, economics, statistics, finance, and management. Students who identify gaps in foundational competencies are encouraged to utilize the program's recommended supplemental learning resources to support their readiness for and success in graduate-level coursework.

Please refer to the attached spreadsheet (https://catalog.tarleton.edu/grad/businessadministration/Alternative_Leveling_Options.xlsx) for course options.

Accelerated Bachelor's-to-Master's Degree Program

The MS-Information Systems program provides a fast-track pathway for students to complete both undergraduate and graduate degrees in a shorter time frame by integrating graduate coursework into the latter stages of the undergraduate program. As an undergraduate to pursue this option you must meet the following requirements:

- Apply and be conditionally accepted by the College of Graduate Studies and be accepted into the MS-IS program.
- Be within 12 hours of obtaining their Tarleton State University degree in BAAS-IT, BBA-MIS, or BS-CIS.
- Have a GPA of 3.0 or higher overall or during the last 60 hours, whichever is higher.

Admission Process

- Complete the Graduate Provisional/Accelerated Enrollment Form to take graduate courses as an undergraduate student.
- Work with an academic advisor (https://www.tarleton.edu/cob/undergraduate-advising/) to integrate graduate courses into the undergraduate degree plan.
  - NOTE: In your final undergraduate semester, you will take BCIS 5311 plus an additional BCIS graduate elective, to serve as undergraduate upper-level electives. You are encouraged to consider this option early in your program and to work closely with DSPCOB Academic Advisers and the COB Graduate Programs Manager (https://www.tarleton.edu/cob/graduate-advising/) to take advantage of this option.
- If your degree plan reflects the Bachelor's-to-Master's Degree Program, you will be automatically accepted into the master's program through the Auto-Acceptance Program upon meeting the eligibility requirements, streamlining the transition.
  - Auto-Acceptance waives typical application requirements such as application fees and additional documentation. No GRE or other standardized test score will be required unless the participating program or department requires it for admission to their program.
- Upon completing the bachelor's degree requirements, you will continue in the master's program without needing to reapply.

Transfer Credit

Upon recommendation of the respective COB Graduate Programs Manager (https://www.tarleton.edu/cob/graduate-advising/) and department head in which the program is administered and with approval of the Dean of the College of Graduate Studies, you may transfer ***up to*** 12 hours of graduate work completed at another regionally accredited institution. For programs that require a comprehensive examination (in addition to course work or embedded within) or a capstone course, you must complete core courses at Tarleton.

Course work in which no formal grade is given (for example, CR, P, S, U, etc.) is not accepted for transfer credit. Credit for course work submitted for transfer from any college or university must be shown in semester credit hours or equated to semester credit hours. No academic work completed by correspondence may be applied to graduate degree programs.

GPA Requirements

You are expected to maintain a minimum GPA of 3.0 at all times. Should you earn a grade below C in a graduate course or fall below an overall GPA of 3.0, you may be placed on academic warning or suspension, requiring an academic appeal in order to remain in the program. If you are granted an appeal, you may be advised to repeat a course, reduce your course load, or take other corrective action to remove the deficiency. For more information, see the section on Graduate Student Performance in the Enrollment in Graduate Courses section of the College of Graduate Studies (https://catalog.tarleton.edu/grad/) catalog and review the Satisfactor Academic Performance section of Student Services and Resources (https://www.tarleton.edu/cob/student-services-and-resources/) for information related Graduate Suspension Appeals.

Research Requirement

Research is required as a part of graduate course work, but a separate thesis is not a degree requirement for any Dr. Sam Pack College of Business graduate program. Nevertheless, if you are interested in pursuing a doctorate, it is highly recommended that you should consider a thesis option and you should consult with your respective COB Graduate Programs Manager (https://www.tarleton.edu/cob/graduate-advising/) for more information. The MS-Information Systems degree is a 36-hour program, with a thesis option. The MBA and MACC degrees are 30-hour non-thesis programs. The MS in Human Resource Management program is a 30 hour program with a thesis option. The MS in Logistics and Supply Chain Management program is a 30-36 hour program depending on whether a thesis option is chosen. The MS-Management program ranges from 30-36 hours depending on the concentration, some of which include a thesis option. Finally, the MS in Marketing program is a 30-hour program with no thesis option.

Other Information

- **Academic Appeals Process**: Tarleton's Dr. Sam Pack College of Business adheres to the university's policies on academic appeals. Students experiencing academic grievances should consult the **Satisfactory Academic Performance** section on the Student Services and Resources (https://

www.tarleton.edu/cob/student-services-and-resources/) page. This resource provides clear guidance on the steps for addressing and resolving academic concerns. For further assistance, students are encouraged to contact the appropriate university support services.

- **Netiquette (https://www.tarleton.edu/cob/netiquette/):** Learners are expected to communicate respectfully, respond promptly, and actively participate in discussions and group activities to ensure a collaborative and effective learning environment.
- **Minimum Technology Requirements (https://www.tarleton.edu/cob/minimum-technology-requirements/):** Students enrolled in programs within Tarleton's AACSB-accredited Dr. Sam Pack College of Business must meet minimum technology requirements to ensure seamless access to course materials and online learning activities. Requirements include a reliable computer, high-speed internet connection, and standard productivity software such as Microsoft Office. Additional recommendations may include specific software or tools relevant to the program, as outlined in advising guides or course syllabi. For further assistance, students can access university technical support services.
- **Computer Skills and Digital Information Literacy Skills (https://www.tarleton.edu/cob/computer-skills-and-digital-information/):** To succeed in your courses course, students should possess essential skills such as time management, critical thinking, effective communication, and basic technical proficiency relevant to the course content.
- **Vendor Privacy Statements (https://www.tarleton.edu/cob/vendor-privacy-statements/):** Students are encouraged to review the privacy policies of tools used in your courses to understand how their data is managed. Use of these tools implies agreement with their terms.
- **Technical Support (https://www.tarleton.edu/cob/technical-support/):** For technical support with tools used in your courses, refer to the vendor support resources provided for troubleshooting and assistance. These resources offer guidance to resolve common issues effectively.
- **Accessibility Support (https://www.tarleton.edu/cob/accessibility-support/):** For accessibility support services related to tools used in your courses, visit the vendor accessibility pages provided to ensure inclusive and equitable access. These resources address common accessibility concerns and offer assistance.
- **Academic Support Services (https://www.tarleton.edu/cob/academic-support-services/):** Tarleton's Dr. Sam Pack College of Business offers various academic support services to help students succeed, including orientations for undergraduate and graduate programs, library services, the Math Achievement Center, the Writing Center, and the Tutoring and Learning Center. These resources provide personalized support, from enhancing writing skills to developing effective learning techniques.
- **Student Services and Resources (https://www.tarleton.edu/cob/student-services-and-resources/):** Tarleton's Dr. Sam Pack College of Business offers a wide range of resources to support student success, including academic advising, registration guidance, financial aid assistance, and counseling services. Additional support includes tools for scholarships, veteran services, and career development, with specialized resources like internships and student organizations to enhance professional growth.
- **Vendor Accessibility Statements (https://www.tarleton.edu/cob/vendor-accessibility-statements/):** The Dr. Sam Pack College of Business is committed to providing accessible technology for all students. Accessibility statements for all required technologies used in COB courses, including tools like Canvas, Adobe, Microsoft, Pearson products, and Zoom, are available to ensure equitable access. These statements outline the accessibility features and accommodations provided by each vendor to support an inclusive learning environment.
- **Graduate Online Orientation (https://tarleton.instructure.com/courses/19005/):** The Graduate Online Orientation introduces new graduate students to the resources, expectations, and academic culture of the Dr. Sam Pack College of Business (DSPCOB). This self-paced program covers key aspects of graduate studies, including navigating the online learning environment, utilizing university services like the library and writing center, and understanding program policies and procedures. Orientation ensures that students feel confident and prepared to succeed in their academic journey.
- **Graduate Course Rotations (https://tarleton.sharepoint.com/:x:/s/COBA-CollegeofBusinessAdministration/EaVYeJKX59xLhjf-0E1vFPkBy-2RSy8J_sfvGduuu1K8fA/?e=9antuI):** Graduate Course Rotations provide a structured schedule of when specific graduate courses are offered across semesters. This information helps students plan their academic paths efficiently, ensuring they can meet degree requirements within their desired timeline. Rotations typically detail which courses are available in the fall, spring, and summer semesters and indicate whether they are offered online, in-person, or in hybrid formats.
- **DSPCOB Syllabi (https://tarleton.simplesyllabus.com/en-US/syllabus-library/?organization_id=959fb73a-4c87-429b-b594-b6478f07c5b2):** The DSPCOB Syllabi repository gives students access to detailed course syllabi for all graduate and undergraduate programs within the college. Each syllabus outlines the course objectives, topics covered, grading criteria, required materials, and policies on academic integrity, attendance, and participation. The syllabi serve as a roadmap for academic success, offering clarity on expectations and resources for each course.
  - DSPCOB Syllabi Repository (https://tarleton.sharepoint.com/:f:/s/COBA-CollegeofBusinessAdministration/EmCXrId_dflHuYGPgq8EwJIBdOYJhbXS9ewutrtVFGbR-A/?e=Eom9Kh) (Syllabi prior to the implementation of Simple Syllabus implemented for Spring 2025)
- **Masters in Accounting (MACC): (https://youtu.be/L07QNgxXnNA/)**
  - Program Flyer (https://tarleton.sharepoint.com/:p:/s/COBA-CollegeofBusinessAdministration/ER8GIWEfOQRCmfbEbH4LKxEBwR_qPUcmaWiWSULffkSU5Q/)
  - Webinar (https://youtu.be/3ndikYSPjMk/?si=u1S2qyxkqLX0zUbS)
  - Student Guidebook (https://tarleton.sharepoint.com/:w:/s/COBA-CollegeofBusinessAdministration/ER25yn9pzJBBvQrVGJzhu3MBQ_90xBz66FTzU-ERCNh9Iw/?e=rFBtyg)
  - Advising Guide (https://tarleton.sharepoint.com/:p:/s/COBA-CollegeofBusinessAdministration/EXG5AO91M5FMl4I-ITxRRbYB-M1VgPx8813KbfNLELWweg/?e=J9dW27)
- **Master of Business Administration (MBA) (https://youtu.be/GEWQZGLLCe8/)**
  - Program Flyer (https://tarleton.sharepoint.com/:p:/s/COBA-CollegeofBusinessAdministration/EUvCKMij3SNEvmJYSYrUyNwBofYn8NQTxGRrAd3t6uKTFw/?e=E73gAZ)
  - Webinar (https://youtu.be/6gRiU2gC_1s/?si=U93XWf65OPJSBI4B)
  - Student Guidebook (https://tarleton.sharepoint.com/:w:/s/COBA-CollegeofBusinessAdministration/EXjLgcW1GPpIhwHNfR_PJ8IByx1F_Y58cFopySjiHIF-kg/?e=O69cdK)
  - Advising Guide – Traditional (https://tarleton.sharepoint.com/:p:/s/COBA-CollegeofBusinessAdministration/EWi8MEHSQGhMo_GE3qS_pu0BqZa0DYKXKWlknbJL6Vn6UQ/?e=8Hfrq8)
  - Advising Guide (F1-International Students) (https://tarleton.sharepoint.com/:p:/s/COBA-CollegeofBusinessAdministration/EdGpbkrSZuRBprvfxOYYVhgBdwHBiEeu3LgMUte6p4TZDA/?e=ZV9RnI)
  - Advising Guide – Fast-Track (https://tarleton.sharepoint.com/:p:/s/COBA-CollegeofBusinessAdministration/EdokFOkUguJHshKaqooTRkAB3TASbkiLWv9zf35w2WPq5Q/?e=MK1mAy)
- **MS-Human Resource Management (MS-HRM) (https://youtu.be/QbEfLeWWppg/)**
  - Program Flyer (https://tarleton.sharepoint.com/:p:/s/COBA-CollegeofBusinessAdministration/ESD-M3-VXcJCs33k3VfSkpoBC732pwLhtkPrCEWgCL8AkA/?e=m6aYta)
  - Webinar (https://youtu.be/yt0lao9_Yug/?si=sec6njC3fMMbH8n0)
  - Student Guidebook (https://tarleton.sharepoint.com/:w:/s/COBA-CollegeofBusinessAdministration/EU7j-R3csqBHgAUug9mjCtMBug8h2RNPDoC85Y9PGTMhhA/?e=vAqGIJ)
  - Advising Guide (https://tarleton.sharepoint.com/:p:/s/COBA-CollegeofBusinessAdministration/EawhY_dawmdEtEXOcG2nQzMBGb3G6ltgy1PRq-iGJiZvsg/?e=eVYa9d)
- **(https://tarleton.sharepoint.com/:p:/s/COBA-CollegeofBusinessAdministration/EawhY_dawmdEtEXOcG2nQzMBGb3G6ltgy1PRq-iGJiZvsg/?e=eVYa9d)MS-Logistics and Supply Chain Management (MS-LSCM)**

    - (https://tarleton.sharepoint.com/:w:/s/COBA-CollegeofBusinessAdministration/EYBtWuT_I2lBsmEvocrH1LEBaqMYZT-uFw2Fl6tqk0so-g/?e=ux1VLi)Program Flyer (https://tarleton.sharepoint.com/:p:/s/COBA-CollegeofBusinessAdministration/ETZhZCBuH_pHkScmQui7qtsBURkhG21TGGJnRUtIzex_Ig/?e=et3N55)
    - Webinar (https://youtu.be/6XV-YeFoBig/?si=MAr2Eaq2pAKrXkm9)
    - Student Guidebook (https://tarleton.sharepoint.com/:w:/s/COBA-CollegeofBusinessAdministration/EYBtWuT_I2lBsmEvocrH1LEBaqMYZT-uFw2Fl6tqk0so-g/?e=ux1VLi)
    - Advising Guide (https://tarleton.sharepoint.com/:p:/s/COBA-CollegeofBusinessAdministration/EcfRWjJ-J7JCrtyrGpJODoMBejpnGWp5YIsiXFsGUD6NoA/?e=MfCtWH)
- **MS-Management**
    - Program Flyer (https://tarleton.sharepoint.com/:p:/s/COBA-CollegeofBusinessAdministration/EaXTyrBHHrNEnZhD_u1wQIEB2HbNIs9nEQ1IBcwNbA1_eA/?e=jO3cy9)
    - Webinar (https://youtu.be/dQ1pvKujGtM/?si=zxTCVDQMrPRRus_M)
    - Student Guidebook (https://tarleton.sharepoint.com/:w:/s/COBA-CollegeofBusinessAdministration/EZ_clqXQvX1CnUKZkm9R1PgBY4HTHQUO51BDJvKDbEvgtg/?e=4meckp)
    - Advising Guide (https://tarleton.sharepoint.com/:w:/s/COBA-CollegeofBusinessAdministration/EdPRRJNOSm9Ni32InYei_WwBdI87EiVhPm1oitttEc39iw/?e=S97mFD)
- **Masters in Information Systems (MS-Information Systems) (https://youtu.be/1N4dKpn6wYc/)**
    - Program Flyer (https://tarleton.sharepoint.com/:p:/s/COBA-CollegeofBusinessAdministration/EYTH9ztsiF9JuiBLHxfNHlYBg18hMvGLptrQfoCegqjInw/?e=swbWuI)
    - Webinar (https://youtu.be/Rp0QMHDU_HI/?si=UwgcQaZ1Z84FZZlw)
    - Student Guidebook (https://tarleton.sharepoint.com/:w:/s/COBA-CollegeofBusinessAdministration/EcFAJ08_8utOukwr5zV03hQBHW4mLjrf_7KTGPHqU1Ni_w/)
    - Advising Guide (https://tarleton.sharepoint.com/:p:/s/COBA-CollegeofBusinessAdministration/Ec0ikSoE4flHgjUK4Xj6r38Bq3AyWyMSL71qCKkCiOIR3Q/)
- **Masters in Marketing (MS-Marketing)**
    - Program Flyer (https://tarleton.sharepoint.com/:p:/s/COBA-CollegeofBusinessAdministration/EesW7Z_6ldFCjY-WV4c_TOYBobe-6Vv4zfM0DzjgGTn2jg/)
    - Webinar (https://youtu.be/G4RQ2zJ_9fY/?si=pceaqpt9K0tIA7cj)
    - Student Guidebook (https://tarleton.sharepoint.com/:w:/s/COBA-CollegeofBusinessAdministration/EUB5C4btK4dAmb8M0jpLThcB4gOAvl6V7YeoWI2aFyQdNw/?e=wsLeE0)
    - Advising Guide (https://tarleton.sharepoint.com/:p:/s/COBA-CollegeofBusinessAdministration/EXg-NM4siUJCgNfK0qsHIo0BGmZtI1PU3TL26KWwJTiYaA/?e=9fSEv6)

Questions?

Send your questions to the COB Graduate Programs Manager (https://www.tarleton.edu/cob/graduate-advising/) at cob.graduate@tarleton.edu

Department of Accounting, Finance, and Economics

Ms. Laura Gordey, Department Head
Department of Accounting, Finance and Economics
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Box T-0920
Stephenville, TX 76402
Phone: 254-968-9895
Fax: 254-968-9665
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Ms. Michelle Dummar
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254-968-9331
mdummar@tarleton.edu

Welcome to the Department of Accounting, Finance, and Economics at Tarleton State University's Dr. Sam Pack College of Business, an AACSB-accredited institution. Our department provides an exceptional learning environment, offering specialized programs such as the highly regarded Master of Accounting (MACC). With a focus on academic excellence and practical application, we prepare students for leadership and success in the competitive business world.

As part of the Dr. Sam Pack College of Business, which collaborates on the Master of Business Administration (MBA) degree, the Department of Accounting, Finance, and Economics also offers the Master of Accounting (MACC) program. This program is distinguished by its high pass rates on the Certified Public Accountant (CPA) exam, ranking among the best of any public university in the Dallas-Fort Worth area or the Texas A&M University System.

For learners preparing to become Certified Public Accountants, the Public Accountancy Act of 1991 requires applicants to have completed at least a baccalaureate degree and no fewer than 150 semester credit hours of recognized coursework. The Bachelor of Business Administration (BBA) in Accounting satisfies 120 of the 150 hours required to sit for the CPA exam. To meet the remaining 30 hours, students can pursue the MACC or MBA degree as outlined in the graduate section of the catalog. Learners holding a baccalaureate degree in accounting can complete the MACC program to fulfill the 150-hour requirement and advance their career opportunities.

Master of Accounting in Accounting

Mission:

Designed to prepare learners for professional careers in the public, private, or governmental sector. As part of this objective the program is designed to provide the educational background to become a Certified Public Accountant or to attain other professional certifications such as Certified Management Accountant, Chartered Global Management Accountant, and Certified Fraud Examiner.

Location(s)/Modality Offered:

- Online

Requirements:

To pursue this degree, learners are required to hold a baccalaureate degree and obtain acceptance to the College of Graduate Studies at Tarleton. Learners will need reliable Internet access, basic computer skills, ample time to dedicate to completing the required course content, and the desire to complete an advanced degree that can provide opportunities for career advancement.

After a MACC applicant is admitted to the College of Graduate Studies, his/her transcript, application, essay, and test scores (if applicable), will be evaluated by the MACC Program Coordinator (https://www.tarleton.edu/afe/people/). The coordinator evaluates the learner's educational background to determine what leveling requirements or program prerequisites may be needed. Leveling requirements will be determined on a case-by-case basis and may be satisfied by taking graduate leveling courses or through other appropriate means.

A learner whose undergraduate degree was not in accounting may be required to take additional course work (which is not counted toward the 30 hours required for the degree) to be prepared for successful graduate study in business. **All required leveling courses must be completed within the first 12 hours of course work and before any other courses in that discipline.** For more information regarding leveling requirements, please reach out to the MACC Program Coordinator or refer to the MACC Student Guidebook (https://tarleton.sharepoint.com/:w:/s/COBA-CollegeofBusinessAdministration/ER25yn9pzJBBvQrVGJzhu3MBQ_90xBz66FTzU-ERCNh9Iw/).

Before a learner completes 12 hours of graduate credit in the MACC program, the learner should contact the Graduate Program Manager (https://www.tarleton.edu/cob/graduate-advising/) and request that an official degree plan be prepared. The learner may petition for changes in this degree plan at a later date, but these changes must be approved by the MACC Program Coordinator (https://www.tarleton.edu/afe/people/).

ACCT 5302	Cost/Management Accounting	3
ACCT 5304	Advanced Financial Accounting & Reporting	3
ACCT 5305	Federal Tax Accounting I (or Approved Advised Graduate Elective*)	3
ACCT 5306	Federal Tax Accounting II	3
ACCT 5323	Ethics for Professional Accountants (or Approved Advised Graduate Elective*)	3
ACCT 5324	Auditing (or Approved Advised Graduate Elective*)	3
ACCT 5335	Financial Statement Analysis	3
or FINC 5335	Financial Statement Analysis	
ACCT 5357	Accounting Theory	3
BUSI 5397	Evidence Based Decision Making	3
or ECON 5311	Econometrics and Forecasting	
Choose 3 elective graduate hours		3
Total Hours		**30**

Other Information

- **Academic Appeals Process**: Tarleton's Dr. Sam Pack College of Business adheres to the university's policies on academic appeals. Students experiencing academic grievances should consult the **Satisfactory Academic Performance** section on the Student Services and Resources (https://www.tarleton.edu/cob/student-services-and-resources/) page. This resource provides clear guidance on the steps for addressing and resolving academic concerns. For further assistance, students are encouraged to contact the appropriate university support services.
- **Netiquette (https://www.tarleton.edu/cob/netiquette/):** Learners are expected to communicate respectfully, respond promptly, and actively participate in discussions and group activities to ensure a collaborative and effective learning environment.
- **Minimum Technology Requirements (https://www.tarleton.edu/cob/minimum-technology-requirements/):** Students enrolled in programs within Tarleton's AACSB-accredited Dr. Sam Pack College of Business must meet minimum technology requirements to ensure seamless access to course materials and online learning activities. Requirements include a reliable computer, high-speed internet connection, and standard productivity software such as Microsoft Office. Additional recommendations may include specific software or tools relevant to the program, as outlined in advising guides or course syllabi. For further assistance, students can access university technical support services.
- **Computer Skills and Digital Information Literacy Skills (https://www.tarleton.edu/cob/computer-skills-and-digital-information/):** To succeed in your courses course, students should possess essential skills such as time management, critical thinking, effective communication, and basic technical proficiency relevant to the course content.
- **Vendor Privacy Statements (https://www.tarleton.edu/cob/vendor-privacy-statements/):** Students are encouraged to review the privacy policies of tools used in your courses to understand how their data is managed. Use of these tools implies agreement with their terms.
- **Technical Support (https://www.tarleton.edu/cob/technical-support/):** For technical support with tools used in your courses, refer to the vendor support resources provided for troubleshooting and assistance. These resources offer guidance to resolve common issues effectively.
- **Accessibility Support (https://www.tarleton.edu/cob/accessibility-support/):** For accessibility support services related to tools used in your courses, visit the vendor accessibility pages provided to ensure inclusive and equitable access. These resources address common accessibility concerns and offer assistance.
- **Academic Support Services (https://www.tarleton.edu/cob/academic-support-services/):** Tarleton's Dr. Sam Pack College of Business offers various academic support services to help students succeed, including orientations for undergraduate and graduate programs, library services, the Math Achievement Center, the Writing Center, and the Tutoring and Learning Center. These resources provide personalized support, from enhancing writing skills to developing effective learning techniques.
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- **Graduate Course Rotations (https://tarleton.sharepoint.com/:x:/s/COBA-CollegeofBusinessAdministration/EaVYeJKX59xLhjf-0E1vFPkBy-2RSy8J_sfvGduuu1K8fA/?e=9antul):** Graduate Course Rotations provide a structured schedule of when specific graduate courses are offered across semesters. This information helps students plan their academic paths efficiently, ensuring they can meet degree requirements within their desired timeline. Rotations typically detail which courses are available in the fall, spring, and summer semesters and indicate whether they are offered online, in-person, or in hybrid formats.
- **DSPCOB Syllabi (https://tarleton.simplesyllabus.com/en-US/syllabus-library/?organization_id=959fb73a-4c87-429b-b594-b6478f07c5b2):** The DSPCOB Syllabi repository gives students access to detailed course syllabi for all graduate and undergraduate programs within the college. Each syllabus

outlines the course objectives, topics covered, grading criteria, required materials, and policies on academic integrity, attendance, and participation. The syllabi serve as a roadmap for academic success, offering clarity on expectations and resources for each course.
  - DSPCOB Syllabi Repository (https://tarleton.sharepoint.com/:f:/s/COBA-CollegeofBusinessAdministration/EmCXrId_dflHuYGPgq8EwJIBdOYJhbXS9ewutrtVFGbR-A/?e=Eom9Kh) (Syllabi prior to the implementation of Simple Syllabus implemented for Spring 2025)
- **Masters in Accounting (MACC): (https://youtu.be/L07QNgxXnNA/)**
  - Program Flyer (https://tarleton.sharepoint.com/:p:/s/COBA-CollegeofBusinessAdministration/ER8GIWEfOQRCmfbEbH4LKxEBwR_qPUcmaWiWSULffkSU5Q/)
  - Webinar (https://youtu.be/3ndikYSPjMk/?si=u1S2qyxkqLX0zUbS)
  - Student Guidebook (https://tarleton.sharepoint.com/:w:/s/COBA-CollegeofBusinessAdministration/ER25yn9pzJBBvQrVGJzhu3MBQ_90xBz66FTzU-ERCNh9Iw/?e=rFBtyg)
  - Advising Guide (https://tarleton.sharepoint.com/:p:/s/COBA-CollegeofBusinessAdministration/EXG5AO91M5FMl4I-ITxRRbYB-M1VgPx8813KbfNLELWweg/?e=J9dW27)

Questions?

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Chair

- Goodpasture, Dr. Jim

Administrative Assistant

- Dummar, Ms. Michelle

Regents Professor

- Jafri, Dr. Hussain

Professors

- Aroskar, Dr. Rajarchi
- Blythe, Dr. Stephen
- Esqueda, Dr. Omar
- Jafri, Dr. Hussain
- Sankar, Dr. Sundarrajan
- Thomas, Dr. Charles (Chuck)

Associate professors

- Bauer, Dr. Keldon
- Gordey, Dr. Laura
- Goodpasture, Dr. James
- Katuwal, Dr. Hari
- Leach, Dr. Judd
- Post, Dr. Kyle
- Rogers, Dr. Nina
- Watson, Dr. Derrill

Assistant professors

- Karimia, Dr. Mohammad Sharif
- Lamptey, Dr. Ebenezer
- Seo, Dr. Jiwoo
- Tanter, Mr. Alex
- Varnell, Ms. Karen

Instructor

- Burkhart, Ms. Rachel

Visiting Professor

- Chen, Dr. Yong

Accounting Courses

ACCT 5086. Problems. 1-3 Credit Hours (Lecture: 0 Hours, Lab: 1-3 Hours).
This course offers students the opportunity to become acquainted with current research being conducted within the student's area of interest; directed reading of a number of sources selected in concert by the student's professor. Prerequisite: Approval of department head.

ACCT 5301. Financial Accounting. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is a part of and a continuation of the Intermediate Accounting sequence. It extends and builds directly on what students have learned in ACCT 3303 and 3304. Topics may include: accounting for pensions; accounting for income taxes in a corporation's financial reporting; changes in accounting principles and correction of errors; preparation of statement of cash flows. This course is intended to qualify for recognition by the Texas State Board of Public Accountancy as one semester hour in accounting research and analysis (reflecting the dedication of one semester hour to research and analysis). Accordingly, this course addresses the identification, organization, and integration of diverse sources of information to reach a conclusion or make a decision; and should analyze accounting and taxation issues by reviewing information, using empirical data and analytical methods, recognizing data in patterned activities, forecasting, and integrating data. Students who have successfully completed ACCT 4301 (or equivalent course) cannot receive credit for this course. Students must have a mastery of intermediate financial accounting.

ACCT 5302. Cost Analysis & Control. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of management control systems, profit performance, standard and direct costing, investment control, and long-range planning. Included is an introduction to accounting for material, labor and manufacturing expenses as related to specific jobs and for process costing, hybrid costing, developing cost systems that will enhance a company's ability to meet its overall objectives in order to remain competitive, methods of cost allocations, and cost, volume and profit analysis as tools for providing management with information required for making decisions. Methods of allocation of joint costs to products and by-products will be covered as well as coverage of the contribution margin approach to analyze products and the concepts of variable costing and absorption costing for products as used in decision making. This course includes research components. Students who have successfully completed ACCT 3302 (or equivalent course) cannot receive credit for this course. Prerequisite: COBA 5101.

ACCT 5303. Accounting Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of accounting related to the problems of making business and economic decisions. Course content includes both financial and managerial accounting. Learners will be required to prepare accounting reports and other information as well as interpret and discuss the information. Course may not be used as credit toward the Master of Accounting (MAcc) degree program. Prerequisite: COBA 5101, or equivalent, or department head approval.

ACCT 5304. Advanced Financial Accounting & Reporting. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An intensive study of theory and practices related to advanced financial accounting topics pertaining to partnerships, joint ventures, consignments, installment sales, insolvent (bankruptcy) concerns, and business combinations. Significant coverage of consolidated financial statements is provided in this course. The course covers foreign currency translation, hedge accounting and International Accounting Principles. This course includes a research component. Students who have successfully completed ACCT 4303 (or equivalent) cannot receive credit for this course. Prerequisite: COBA 5101, Intermediate (Financial) Accounting courses.

ACCT 5305. Federal Tax Accounting I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
General concepts of federal income taxation applicable to individuals and business entities. Students who have successfully completed ACCT 4305 cannot receive credit for this course. Prerequisite: COBA 5101 or equivalent.

ACCT 5306. Federal Tax Accounting II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The tax consequences of doing business by using corporations, partnerships, and S corporations from creation, to operating, distribution, and dissolution are discussed. Furthermore, the impact of transactions on corporations and shareholders, the partnership and its partners is emphasized throughout the course. Fiduciary relationships are also discussed. Students who have successfully completed ACCT 4306 (or equivalent course) cannot receive credit for this course. Prerequisite: ACCT 5305 (Federal Tax Accounting I).

ACCT 5307. Governmental and Not-for-Profit Accounting. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A course specialized in financial accounting related to state and local governments, governmental agencies, and not-for-profit organizations. This course is designed to develop students' ability to prepare, use, and interpret both financial accounting information for state and local governments and various types of not-for-profit organizations, both public sector and private sector. Students will examine how the environment for governmental and not-for-profit entities affects appropriate accounting practice and reporting. Emphasis will be placed on how these entities demonstrate accountability and why demonstrating accountability is important. Students will apply fund accounting and budgetary accounting; prepare and analyze financial statements for individual funds and for the state or local government as a whole; and prepare and analyze financial statements for private and public not-for-profit entities. Course includes research component. Prerequisite: COBA 5101 or equivalent or department head approval.

ACCT 5309. International Accounting. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Examination of international accounting within the context of managing multinational enterprises (MNEs). The course will address different countries' accounting issues and International Accounting Standards by IFRIS. Prerequisites: COBA 5101 and Intermediate (Financial) Accounting courses or approval by the department head.

ACCT 5310. Information Systems in Accounting. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An in-depth study of the application of information systems knowledge to the accounting environment. Emphasis is on developing an understanding the processing of accounting data in a computer environment and the controls necessary to assure accuracy and reliability of the data being processed. Students who have successfully completed ACCT 3310 cannot receive credit for this course. Prerequisite: Mastery of intermediate financial accounting or department head approval.

ACCT 5311. Managing Information Systems. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Studies the management and use of information and technology as a resource to create competitive businesses, manage global operations, provide useful products and quality services to customers, whether public or private. Examines information systems management, intellectual property, privacy, organizational and societal impact, legal issues, ethics, security issues, decision making, strategic information systems, and management and organizational support systems.

ACCT 5315. Taxation of Gifts and Estates. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is intended to provide students with a general understanding of the fundamental principles of the United States estate and gift tax system. Students will (i) learn basic principles and concepts of estate planning, (ii) learn the theoretical basis of the U.S. approach to estate and gift taxation and (iii) gain detailed knowledge of estate and gift tax issues. In addition, the course will prepare students to anticipate, recognize, and manage various issues that arise in the transfer tax system. Students who have successfully completed ACCT 4315 (or equivalent course) cannot receive credit for this course.

ACCT 5323. Ethics for Professional Accountants. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Explores ways for an accountant to integrate ethical behavior into professional life. Includes a study of ethical behavior and decision making. Also examines various professional codes of conduct within the accounting profession will be examined with emphasis on accountants' integrity, independence and objectivity, and legal liability. Students who have successfully completed ACCT 4323 (or equivalent course) cannot receive credit for this course. Students must have a mastery of intermediate financial accounting.

ACCT 5324. Auditing and Professional Responsibility. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of financial auditing standards and procedures. Theory and practice are combined to enable the student to better understand how audits are conducted and to prepare students for the CPA examination. Students who have successfully completed ACCT 4324 cannot receive credit for this course. Credit for both ACCT 4324 and ACCT 5324 will not be permitted by the College of Business Administration (the topics covered in these two courses are equivalent from a Texas State Board of Public Accounting standpoint). Leveling coursework may be required prior to enrollment into this course. Prerequisite: Mastery of intermediate financial accounting or department head approval.

ACCT 5325. Fraud Examination. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will cover the current impact of fraud in the workplace, types of fraud schemes, how to prevent fraud in the workplace, how fraud is detected and investigated, and legal aspects of fraud. Each student will research an assigned current fraud topic, prepare a term paper and give an oral presentation of the results. Students who have successfully completed ACCT 4325 (or equivalent course) cannot receive credit for this course. Prerequisite: ACCT 5324.

ACCT 5330. Advanced Managerial Accounting. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Advanced course in managerial accounting: planning, analysis, and control. Develops the role of accountants as financial managers and members of firms' strategic management teams. Topics include developing cost estimates for managers' decision-making, measuring and reporting performance, capital budgeting, and management control systems in complex organizations. Prerequisite: Cost Accounting (ACCT 5302) or approval of department head.

ACCT 5335. Analysis of Financial Statement Information. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of financial statement analysis and accounting topics related to financial statement presentation and disclosure. Prerequisite: Mastery of intermediate financial accounting or department head approval.

ACCT 5357. Accounting Theory. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A systematic study of generally accepted accounting principles and rules that govern the practical application of accounting methods. Prerequisites: Mastery of intermediate financial accounting or department head approval, ACCT 5302 or equivalent, and ACCT 5323 or equivalent. ACCT 5302 and/or ACCT 5323 may be completed concurrently with this course.

ACCT 5384. Accounting Internship. 3 Credit Hours (Lecture: 0 Hours, Lab: 20 Hours).
Directed real-world learning experience under the supervision of a practicing professional accountant. The internship assignment must be approved by an accounting internship advisor prior to enrollment. The internship must be related to the student's field of study and requires at least 320 hours of supervised work in total, including at least 160 during the semester term. Student maintains a diary of work experience gained and, at semester-end, prepares a written paper reflecting on the work experience. Student also provides to accounting internship advisor the employer's evaluation of performance and maintains records of all the listed documentation. No credit will be given for previous experience or activities. Prerequisite: Must have completed at least 15 graduate credit hours with at least a 3.0 GPA for all attempted course work toward the master's degree.

ACCT 5385. Accounting Seminar. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Selected accounting topics of current importance to business management. May be repeated once for credit when topics vary.

ACCT 5390. Selected Topics in Accounting. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An examination of different financial, managerial, governmental, and not-for-profit topics in Accounting. The course may be repeated for credit as the topic changes. Prerequisite: Mastery of intermediate financial accounting or department head approval.

ACCT 6307. Governmental and Not-for-Profit Accounting. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A course specialized in financial accounting related to state and local governments, governmental agencies, and not-for-profit organizations. This course is designed to develop students' ability to prepare, use, and interpret both financial accounting information for state and local governments and various types of not-for-profit organizations, both public sector and private sector. Students will examine how the environment for governmental and not-for-profit entities affects appropriate accounting practice and reporting. Emphasis will be placed on how these entities demonstrate accountability and why demonstrating accountability is important. Students will apply fund accounting and budgetary accounting; prepare and analyze financial statements for individual funds and for the state or local government as a whole; and prepare and analyze financial statements for private and public not-for-profit entities. Course includes research component. Prerequisite: COBA 6101 or equivalent or department head approval.

Business Administration Courses

COBA 5100. Foundations of Management. 2 Credit Hours (Lecture: 1.5 Hour, Lab: 0 Hours).
Framework of the functions and development of management practice. Emphasis on management roles and approaches, applied ethics, and leadership of others in a dynamic, global environment. May be required for admission to Graduate Business Programs. May not be used as credit toward Graduate Business Programs.

COBA 5101. Foundations of Accounting. 2 Credit Hours (Lecture: 1.5 Hour, Lab: 0 Hours).
This course presents the foundational principles of accounting to graduate students without a previous foundation. Students will be introduced to the basics of bookkeeping, the accounting cycle, financial statement generation, and basics of interpretation of financial statements. May be required for admission to Graduate Business Programs. May not be used as credit toward Graduate Business Degrees.

COBA 5102. Foundations of Finance. 2 Credit Hours (Lecture: 1.5 Hour, Lab: 0 Hours).
Introduction to financial concepts with a corporate finance perspective: calculation and interpretation of financial ratios, time value of money (TVM), valuation of corporate bonds. May be required for admission to Graduate Business Programs. May not be used as credit toward Graduate Business Degrees. Prerequisite: Recommendation: Foundations of Accounting or equivalent, and Foundations of Economics or equivalent.

COBA 5103. Foundations of Statistics. 2 Credit Hours (Lecture: 1.5 Hour, Lab: 0 Hours).
Introduction to statistics and probability including: Methods of sampling, classifying, analyzing, and presenting numerical data; frequency distribution, averages, dispersion, times series analysis, correlation, and forecasting for business purposes May be required for admission to Graduate Business Programs. May not be used as credit toward Graduate Business Degrees.

COBA 5104. Foundations of Economics. 2 Credit Hours (Lecture: 1.5 Hour, Lab: 0 Hours).
An integrated survey of both microeconomics and macroeconomics. May be required for admission to Graduate Business Programs. May not be used as credit toward Graduate Business Degrees.

COBA 5105. Foundations of Marketing. 2 Credit Hours (Lecture: 1.5 Hour, Lab: 0 Hours).
This course introduces the principles and concepts of the design, distribution, pricing, and promotion of goods, services, people, places, and causes offered by profit-seeking and non-profit organizations. It also examines both national and international markets and includes an application of the legal and ethical constraints on the marketing field. May be required for admission to Graduate Business Programs. May not be used as credit toward Graduate Business Degrees.

COBA 5301. Foundations of Accounting. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The first component of this course presents the foundational principles of accounting to graduate students without a previous foundation. The second component of this course presents the foundational principles of statistics for graduate students without a previous foundation.

COBA 5302. Foundations of Economics and Finance. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A foundational course in economics and finance for those students without sufficient preparation. The first component will present the basics of economics. The second component will present the basics of finance.

COBA 6101. Foundations of Accounting. 2 Credit Hours (Lecture: 1.5 Hour, Lab: 0 Hours).
This course presents the foundational principles of accounting to graduate students without a previous foundation. Students will be introduced to the basics of bookkeeping, the accounting cycle, financial statement generation, and basics of interpretation of financial statements. May be required for admission to Graduate Business Programs. May not be used as credit toward Graduate Business Degrees.

COBA 6102. Foundations of Finance. 2 Credit Hours (Lecture: 1.5 Hour, Lab: 0 Hours).
Introduction to financial concepts with a corporate finance perspective: calculation and interpretation of financial ratios, time value of money (TVM), valuation of corporate bonds. May be required for admission to Graduate Business Programs. May not be used as credit toward Graduate Business Degrees.

Economics Courses

ECON 5086. Problems. 1-3 Credit Hours (Lecture: 0 Hours, Lab: 2-6 Hours).
This course offers students the opportunity to become acquainted with current research being conducted within the student's area of interest; directed reading of a number of sources selected in concert by the student's professor. Prerequisite: Approval of department head.

ECON 5308. Managerial Economics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Applies economic theory and methodology to business and administrative decision-making. The tools of economic analysis are demonstrated and their use in formulating business policies is explained. Topics include concepts of profits, production and cost functions, demand theory, competitive pricing policies, and business criteria for investment output and marketing decisions. Prerequisite: Approval of MBA Director.

ECON 5311. Econometrics and Forecasting. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Econometrics is the science of using statistics to estimate economic relationships, test theories, and evaluate the impacts of government and business policies. Econometrics is also used to forecast or predict how economic variables, stock prices, and other time-varying economic indicators behave. It is used not only in economics, but in fields as diverse as finance, marketing, political science, sociology, biology, and even comparative literature. This course is data-driven as students apply what they have learned in other courses to specific, testable research questions. Credit will not be granted for both ECON 4311 and Econ 5311. Prerequisites: COBA 5103 and COBA 5104, or MATH 5305, or AGEC 5317, or equivalent undergraduate preparation.

ECON 5320. Health Care Economics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is intended to provide important background information surrounding the health care reform debate and address a spectrum of economic and policy issues impacting the health care industry. A basic overview of the health care industry emphasizing the economic issues affecting medical care delivery and finance is provided. The demand side and the supply side of the health care market are studied with the ultimate focus on the use of the technical tools of economics to address public policy issues. Emphasis is placed on the changing nature of health care and its implications for medical and health industry. The course is accessible for non-economics majors. Credit will not be given for both ECON 4320 and 5320. Prerequisites: None - Some background in accounting, economics and finance is helpful.

ECON 5359. Economic Applications and Issues. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Seminar examination of the application of economic theory in the firm (micro) and in the overall economy (macro); in-depth research and analysis of current economic issues through critical examination of the professional literature and the current environment of business government. Prerequisite: ECON 4365 Intermediate Economics or Micro and Macroeconomics.

ECON 5364. Seminar On Global Commerce. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Focuses on global competitive challenges facing business management teams. Students will evaluate how companies have strategically entered and developed international markets and managed global diversification. Students will learn to analyze international market potential, assess business risks and become familiar with institutions and national policies directing international trade. Prerequisite: ECON 4365 Intermediate Economics or Micro and Macroeconomics.

Finance Courses

FINC 5086. Problems. 1-3 Credit Hours (Lecture: 0 Hours, Lab: 1-3 Hours).
This course offers students the opportunity to become acquainted with current research being conducted within the student's area of interest; directed reading of a number of sources selected in concert by the student's professor. Prerequisite: Approval of department head.

FINC 5301. International Finance and Business Strategy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The course examines the major international issues pertaining to finance, including choosing and implementing an appropriate corporate strategy, the determination of exchange rates, international risk management, transfer pricing, and evaluating and financing international investment opportunities. There will be readings and case analysis and students will be required to report on research findings. Credit for both FINC 5301 and BUSI 5301 will not be awarded.

FINC 5305. Case Studies in Corporate Finance. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A course designed to use case studies and financial analysis to further the graduate student's knowledge and ability to make financial management decisions. Selected cases will be assigned for outside the classroom analysis, and preparation of proposed solutions. The classroom will be used to discuss the cases, the student's proposal for solutions, and desired courses of action. The cases will be such that students will be required to use prior knowledge, current research, and a good deal of analytical ability in preparing their proposals. Prerequisite: Graduate standing.

FINC 5306. Financial Markets and Institutions. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is intended to give the student a broad coverage of the operation, mechanics, and structure of the financial system within the United States, emphasizing its institutions, markets, and instruments. Monetary policy of the Federal Reserve and its impact upon financial institutions are treated.

FINC 5307. Financial Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Course focuses on financial decision making in the modern corporation. Basic issues include capital budgeting, capital structure, corporate sources of funding, dividend policy, financial risk management, standard theories of risk and return, and valuation of assets. Prerequisite: COBA 5102, or equivalent, or department head approval.

FINC 5320. Health Care Finance. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Health Care Finance offers an introduction to decision making in health care settings using accounting and finance theories, principles, concepts and techniques most important to managers. Credit for both FINC 5320 and ACCT 5320 will not be awarded.

FINC 5329. Sports Finance. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines the financial tools that sports managers use to run their sport businesses. As such, it explores traditional and innovative methods of revenue acquisition and financial management in sports organizations, the financial business structure of sports organizations, and the financial planning and forecasting processes that make organizations effective. Various other aspects of finance are discussed as they relate to sports organizations, including the time value of money, capital structuring, stocks and bonds, inventory management, and taxation.

FINC 5335. Analysis of Financial Statements. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of financial statement analysis and accounting topics related to financial statement presentation and disclosure. Prerequisites: A background in both accounting and finance (at least leveling courses in both accounting and finance).

FINC 5385. Seminar on Consumer and Business Finance. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will cover selected consumer and business finance topics. Examples include debt management, initial public offering of a new business, Internet based finance and regulatory aspects, and management of compensation. Students will be expected to research assigned topics and submit reports.

FINC 5390. Selected Topics in Finance. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An examination of different topics in finance from areas such as investments, corporate financial management, and financial markets and institutions. This course may be repeated for credit as the topic changes. Prerequisites: Graduate standing and FINC 3301 or FINC 5307 or approval of instructor.

FINC 6307. Financial Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Course focuses on financial decision making in the modern corporation. Basic issues include capital budgeting, capital structure, corporate sources of funding, dividend policy, financial risk management, standard theories of risk and return, and valuation of assets. Prerequisite: COBA 6102 or equivalent or department head approval.

Department of Management

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Welcome to the Management Department at Tarleton State University's Dr. Sam Pack College of Business, an AACSB-accredited institution. Our department is committed to fostering excellence in management education by providing students with the skills and knowledge to excel in leadership roles and drive

organizational success. With a strong emphasis on real-world applications and business innovation, we prepare students to address the complexities of the modern business environment.

The Department of Management offers four graduate programs designed to meet the needs of aspiring business professionals:

- **Master of Business Administration (MBA):** A versatile degree focusing on core business areas such as management, marketing, finance, and strategy, preparing graduates for leadership positions across industries.
- **Master of Science in Human Resource Management (MS-HRM):** A specialized program focused on equipping HR professionals with advanced skills in recruitment, training, compensation, and strategic human resource management.
- **Master of Science in Management (MS-Management):** A flexible program tailored to advance business management careers, offering concentrations in areas such as business analytics, leadership, and project management.
- **Master of Science in Logistics and Supply Chain Management (MS-LSCM):** A comprehensive program designed to develop expertise in managing the flow of goods, services, and information across global supply chains.

Explore the programs offered by the Dr. Sam Pack College of Business and learn how our AACSB accreditation underscores our commitment to providing high-quality, globally recognized business education.

Master of Business Administration

The MBA program at Tarleton State University, offered through the AACSB-accredited Dr. Sam Pack College of Business, is a comprehensive, business-focused professional degree designed to equip students with advanced knowledge and practical skills in key business areas. Through coursework in accounting, finance, information systems, marketing, business strategy, and more, the MBA program prepares students to excel in leadership roles and succeed in a wide range of industries.

Unlike career-specific advanced degrees, such as teaching credentials or medical degrees, the MBA program develops transferable skills that are valuable across industries, opening doors to numerous career opportunities and positioning graduates for success both now and in the future.

The MBA program is a 30-hour curriculum designed to enhance leadership, decision-making, and critical-thinking abilities in the core functional areas of business, such as management, marketing, finance, and strategy. Students can choose between two flexible program options:

- **Traditional MBA Program:** Completed in 1.5 years, this option uses primarily 16-week long-semester courses, making it ideal for those balancing work, family, and other commitments. This program is well-suited for part-time students with busy schedules.
- **Fast-Track MBA Program:** Designed for those with flexible schedules, this accelerated option allows students to complete the program in as little as one year. The program employs a mix of 3, 5, 8, 10, and 16-week courses, delivering the same rigorous content as the traditional format. Students in the fast-track program have the option to switch to the traditional program, and traditional program participants can also opt to take shorter courses if available.

Both versions of the MBA program reflect the Dr. Sam Pack College of Business's AACSB accreditation, ensuring a high-quality, globally recognized education that prepares graduates for success in the modern business world.

Mission:

The mission of the Master of Business Administration degree program is to provide a relevant, high-quality, broad-based education that develops learners' critical thinking and decision-making skills, thereby preparing them for successful business careers and enhancing life-long learning.

Location(s)/Modality Offered:

The MBA program is offered primarily as an online degree, and all required courses, including leveling courses, are available online every semester. Additionally, select courses are offered on the Fort Worth campus. If you are an international student or veteran seeking full benefits and therefore require in-classroom instruction, the classes listed below are offered on rotation, face-to-face at the Fort Worth campus:

Fall semester:

- BUSI 5397
- BUSI 5365
- ACCT 5303
- MKTG 5308

Spring semester:

- FINC 5307
- BCIS 5311

Requirements:

To pursue the MBA degree offered through the AACSB-accredited Dr. Sam Pack College of Business at Tarleton State University, undergraduate students within 12 credit hours of completing their degree and who have a 3.0 GPA or higher on their last 60 hours of coursework may request Provisional Enrollment. To do so, students must collaborate with the COB Graduate Program Manager (https://www.tarleton.edu/cob/graduate-advising/) to complete the Graduate Student Provisional Form, enabling early registration for graduate courses.

Success in this program requires reliable Internet access, fundamental computer skills, sufficient time to engage with coursework, and the drive to complete an advanced degree that offers career advancement opportunities.

After admission to the College of Graduate Studies, your application materials—including your transcript, essay, and test scores (if applicable)—will be evaluated by the Graduate Program Manager. This evaluation will determine whether you need to meet any graduate leveling requirements or program prerequisites. For students whose undergraduate degrees are not in business, up to nine hours of graduate leveling courses may be required to prepare for success in the MBA program. These leveling requirements are determined on a case-by-case basis and can be met by completing courses under the COBA prefix or other equivalent means. Learn more about Leveling Requirements. (p. 37)

Before completing 12 hours of graduate coursework, students must contact the Graduate Program Manager to request an official degree plan. While changes to the degree plan can be requested later, they must be approved by both the Graduate Program Manager and the Dean of the College of Graduate Studies.

For additional details about the MBA program, including course structure and requirements, consult the MBA Student Guidebook (https://tarleton.sharepoint.com/:w:/s/COBA-CollegeofBusinessAdministration/EXjLgcW1GPpIhwHNfR_PJ8IByx1F_Y58cFopySjiHIF-kg/?e=ROfLrp)

Required courses: [2]

ACCT 5303	Accounting Management	3
BUSI 5397	Evidence Based Decision Making	3
FINC 5307	Financial Management	3
MGMT 5301	Organizational Behavior	3
MKTG 5308	Marketing Strategy	3

ECON 5308	Managerial Economics	3
BCIS 5311	Managing Information Systems	3
BUSI 5380	Strategic Management	3
ACCT/BANA/BCIS/BLAW/BUSI/ECON/FINC/HRMT/LSCM/MGMT/MKTG Electives		6
Total Hours		**30**

Leveling Course Requirements for Non-Business Majors

The MBA program does not require formal leveling coursework. However, students are expected to demonstrate proficiency in core foundational business competencies, including accounting, economics, statistics, finance, and management. Students who identify gaps in foundational competencies are encouraged to utilize the program's recommended supplemental learning resources to support their readiness for and success in graduate-level coursework.

Comprehensive Examination:

To earn the MBA degree from the Dr. Sam Pack College of Business, successful completion of a comprehensive assessment is required as a prerequisite for degree conferral. This assessment is embedded within the MBA capstone course, where students will demonstrate their knowledge and understanding across all areas of Business Administration, including management, marketing, accounting, and business strategy. To be eligible for the comprehensive assessment, students must maintain a GPA of at least 3.0 in their core courses. This ensures that graduates meet the high standards expected of students from an AACSB-accredited institution.

Thesis option

The MBA program is designed to provide broad-based, practical knowledge across key business disciplines. As such, it does not offer a thesis option. Students seeking a more research-intensive graduate experience may wish to consider one of the Dr. Sam Pack College of Business's discipline-focused Master of Science (MS) programs, which may include a thesis option as part of the curriculum.

Questions?

Send your questions to the COB Graduate Program Manager (https://www.tarleton.edu/cob/graduate-advising/) at cob.graduate@tarleton.edu

Master of Science in Human Resource Management

Human resources are a cornerstone of any successful business. Industry leaders understand the importance of strategic human resource management in driving organizational performance, advancing operational excellence, and achieving long-term success. A highly skilled and well-educated human resource team is essential for organizations to remain competitive and address evolving legal, regulatory, and workforce management needs.

The Master of Science in Human Resource Management (MS-HRM), offered by the AACSB-accredited Dr. Sam Pack College of Business at Tarleton State University, is a 30-hour program designed to provide students with advanced knowledge and skills in human resource management. The program emphasizes key areas such as:

- Research and job analysis
- Recruitment and selection
- Training and development
- Compensation and benefits
- Labor relations
- Organizational effectiveness

Graduates of this program are prepared to apply their expertise in both business and not-for-profit settings, including roles in state and local government agencies and military organizations. The MS-HRM program is recognized by the Society for Human Resource Management (SHRM) for its alignment with SHRM's human resource management curriculum guidelines. This graduate program provides students with the tools and insights to effectively manage human capital, positioning them for leadership roles in a variety of professional settings.

Mission:

The mission of the Master of Science degree in Human Resource Management program is to provide a relevant, high-quality, specialized education in Human Resources that develops learners' critical thinking and decision-making skills and connects them with business leaders, thereby preparing them for successful business careers in a global business environment and enhances life-long learning.

Location(s)/Modality Offered:

The Master of Science in Human Resource Management (MS-HRM) program, offered by the AACSB-accredited Dr. Sam Pack College of Business, is available entirely online. Select courses may only be offered during specific semesters or at designated locations.

Requirements:

To pursue the Master of Science in Human Resource Management (MS-HRM) degree at the AACSB-accredited Dr. Sam Pack College of Business, Tarleton State University undergraduate students within 12 hours of obtaining their degree and holding a 3.0 GPA or higher on their last 60 hours of coursework may request Provisional Enrollment. To do so, students must work with the COB Graduate Program Manager (https://www.tarleton.edu/cob/graduate-advising/) to complete the Graduate Student Provisional Form, which allows them to register for graduate classes early. Reliable internet access, basic computer skills, a commitment to completing the required coursework, and a desire to advance in a professional career are essential for success in this program.

Upon admission to the College of Graduate Studies, the Graduate Program Manager will evaluate the applicant's transcript, application, essay, and test scores (if applicable) to determine whether leveling requirements or prerequisites are necessary. For applicants whose undergraduate studies did not include specific business courses, up to nine hours of graduate-level leveling courses may be required to prepare for success in graduate-level business study. These requirements will be determined on a case-by-case basis. Please note that leveling courses are preparatory and do not count toward the 30-hour MS-HRM degree requirement. **Learn more about Leveling (p. 38).**

For additional information about this degree, refer to the MS-HRM Student Guidebook (https://tarleton.sharepoint.com/:w:/s/COBA-CollegeofBusinessAdministration/EU7j-R3csqBHgAUug9mjCtMBug8h2RNPDoC85Y9PGTMhhA/?e=pgn5cS)

HRMT 5301	Law & Regulation in Human Resources	3
HRMT 5302	Human Resource Management	3
HRMT 5303	Training & Development	3
HRMT 5314	Workforce Planning & Talent Management	3
HRMT 5316	Compensation Management	3
HRMT 5324	Employee & Labor Relations	3

MGMT 5368	Organizational Development & Leading Change	3
HRMT 5380	Strategic Human Resources [1]	3
Total Hours		**24**

Non-Thesis

ACCT/BANA/BCIS/BLAW/BUSI/ECON/FINC/HRMT/LSCM/MGMT/MKTG Electives [2]		6
Total Hours		**6**

Thesis/Research

HRMT 5388	Thesis	3
HRMT 5388	Thesis	3
Total Hours		**6**

Leveling Requirement:

To be admitted to the MS-HRM program, students are required to have earned a bachelor's degree in a business discipline from an accredited institution or have substantial management related work experience. Alternatively, students may satisfy the admission requirements by completing additional course work as determined by the Program Coordinator.

Questions?

Send your questions to the COB Graduate Programs Manager (https://www.tarleton.edu/cob/graduate-advising/) at cob.graduate@tarleton.edu (cob.graduate@tarleton.edu)

Master of Science in Management

The Master of Science in Management (MSM) program, offered by the AACSB-accredited Dr. Sam Pack College of Business, is tailored for graduate learners aiming to advance their careers in business management. This flexible, affordable, and customizable program is delivered entirely online, making it accessible to working professionals and those with demanding schedules. Importantly, no leveling courses are required for enrollment.

The MSM is a 30–36 credit hour program designed to equip students with advanced knowledge and practical skills in key areas such as business analytics, executive communication, management and leadership, recreation and sports management, social media strategy, or self-designed concentrations to align with individual career goals. Depending on the chosen concentration, students may complete the program in as little as one year.

Mission:

The mission of the Master of Science in Management program is to provide a relevant, high-quality, specialized education in various aspects of business management that develops learners' critical thinking and decision-making skills. Each concentration of the program develops the emerging executive with knowledge and skills intended to prepare them for a chosen business career paths plus enhances the learner readiness to be an independent life-long learner.

Location(s)/Modality Offered:

The Master of Science in Management (MS-Management) program, offered by the AACSB-accredited Dr. Sam Pack College of Business, is delivered fully online to provide maximum flexibility for learners. Some courses may be offered exclusively during specific semesters or at particular locations as well.

Requirements:

To pursue the Master of Science in Management (MS-Management) degree at Tarleton State University's AACSB-accredited Dr. Sam Pack College of Business, Tarleton undergraduate students who are within 12 hours of completing their degree and have a 3.0 GPA or higher on their last 60 hours of coursework can request Provisional Enrollment. This requires working with the College of Business COB Graduate Program Manager (https://www.tarleton.edu/cob/graduate-advising/) to complete the Graduate Student Provisional Form, enabling early registration for graduate classes.

The MS-Management program does not require leveling courses, making it accessible to students from a variety of academic backgrounds.

Certain concentrations within the MS-Management program include a thesis option. For these concentrations, additional coursework is required to complete the thesis.

For more information about this degree program, consult the official student guidebook: MS-Management Student Guidebook (https://tarleton.sharepoint.com/:w:/s/COBA-CollegeofBusinessAdministration/EZ_clqXQvX1CnUKZkm9R1PgBY4HTHQUO51BDJvKDbEvgtg/?e=4meckp)

MGMT 5301	Organizational Behavior	3
MGMT 5312	Project Management	3
BUSI 5397	Evidence Based Decision Making [1;5]	3
or BANA 5391	Business Analytics Research	
MGMT 5310	Leadership Development [1;6]	3
or MGMT 5311	Managing Operations and Services	
BUSI 5365	Managerial Statistics [1;5;6]	3
or BANA 5301	Business Analytical Statistics	
MGMT 5378	Strategic Business Planning & Policy	3
Total Hours		**18**

Business Analytics

BCIS 5311	Managing Information Systems	3
BCIS 5316	Applied Database Management	3
BCIS 5392	Business Intelligence Systems	3
ECON 5311	Econometrics and Forecasting	3
BANA 5310	Business Applied Data Mining	3

BANA 5320	Prescriptive Analytics	3
Total Hours		**18**

Executive Communication

ENGL 5327	Executive Writing	3
ENGL 5337	Intercultural Technical and Professional Writing	3
ENGL 5338	Technical Editing: Practice and Theory	3
ENGL 5320	Studies in the English Language	3
Choose two of the following:		6
ENGL 5331	History of Rhetoric I	
ENGL 5332	History of Rhetoric II	
ENGL 5333	Rhetorical Criticism	
ENGL 5334	Introduction to Visual Rhetoric	
ENGL 5335	Seminar in Professional Writing	
ENGL 5336	Grant and Proposal Writing	
ENGL 5328	Ethics in Technical and Professional Writing	
Total Hours		**18**

Human Resources

HRMT 5301	Law & Regulation in Human Resources	3
HRMT 5302	Human Resource Management	3
HRMT 5303	Training & Development	3
HRMT 5000 Level Elective		3
Total Hours		**12**

Industrial Quality

BANA 5310	Business Applied Data Mining	3
BANA 5320	Prescriptive Analytics	3
ENGT 5324	Statistics for Engineering Management	3
ENGT 5325	Advanced Concepts in Six Sigma	3
ENGT 5368	Quality Management	3
ENGT 5398	Research in Engineering Management Topics	3
Total Hours		**18**

Management and Leadership - NonThesis

MGMT 5313	Small Business Leadership	3
ENGL 5327	Executive Writing	3
MGMT 5000 Elective		3
MGMT 5000 Elective		3
Total Hours		**12**

Management and Leadership - Thesis

MGMT 5313	Small Business Leadership	3
ENGL 5327	Executive Writing	3
MGMT 5000 Level Elective		3
MGMT 5000 Level Elective		3
MGMT 5388	Thesis	3
MGMT 5388	Thesis	3
Total Hours		**18**

Marketing

MKTG 5308	Marketing Strategy	3
MKTG 5000 Level Electives		9
Total Hours		**12**

Production Operations

MGMT 5311	Managing Operations and Services	3
BANA 5320	Prescriptive Analytics	3
ENGT 5336	Production and Inventory Control	3
ENGT 5362	Supply Chain Management	3
ENGT 5303	Engineering Economics and Decision Analysis	3
or ENGT 5332	Financial Risk for Engineering Project Management	

ENGT 5324	Statistics for Engineering Management	3
Total Hours		**18**

Recreation and Sports

KINE 5305	Administration of Athletics	3
KINE 5317	Leadership and Professional Development	3
KINE 5326	Facilities in Kinesiology, Athletics, and Recreation	3
KINE 5343	Law for Sport and Recreation	3
KINE 5385	Seminar	3
Choose one of the following:		3
KINE 5304	Principles of Sport Organization	
KINE 5312	Contemporary Issues in Sports Medicine	
KINE 5313	Administrative Practices in Sports Medicine	
KINE 5399	Internship	
Total Hours		**18**

Self-Design - NonThesis

ACCT/BANA/BCIS/BLAW/BUSI/ECON/FINC/HRMT/LSCM/MGMT/MKTG Electives [2]		12
Total Hours		**12**

Small and Family Business Management - NonThesis

MGMT 5313	Small Business Leadership	3
MGMT 5314	Family Business Management	3
MGMT 5315	Entrepreneurship Strategy	3
ACCT/BANA/BCIS/BLAW/BUSI/ECON/FINC/HRMT/LSCM/MGMT/MKTG Electives [2]		3
Total Hours		**12**

Small and Family Business Management - Thesis

MGMT 5313	Small Business Leadership	3
MGMT 5314	Family Business Management	3
MGMT 5315	Entrepreneurship Strategy	3
ACCT/BANA/BCIS/BLAW/BUSI/ECON/FINC/HRMT/LSCM/MGMT/MKTG Electives [2]		3
MGMT 5388	Thesis	3
MGMT 5388	Thesis	3
Total Hours		**18**

Social Media Strategy

COMM 5311	Social Media Campaigns [4]	3
COMM 5310	New Communication Technology	3
COMM 5313	Social Media Analytics	3
ACCT/BANA/BCIS/BLAW/BUSI/ECON/FINC/HRMT/LSCM/MGMT/MKTG Electives [2]		3
Total Hours		**12**

Questions?

Send your questions to the COB Graduate Programs Manager (https://www.tarleton.edu/cob/graduate-advising/) at cob.graduate@tarleton.edu (cob.graduate@tarleton.edu)

Master of Science in Logistics and Supply Chain Management

The Master of Science in Logistics and Supply Chain Management (MS-LSCM) program, offered by the AACSB-accredited Dr. Sam Pack College of Business, provides graduate learners with the tools and knowledge to excel in logistics and supply chain careers. Delivered entirely online, the program offers flexibility for working professionals and students managing demanding schedules.

The MS-LSCM is a 30–39 credit hour program designed to prepare students for leadership roles in logistics and supply chain management. The program includes concentrations in Logistics and Supply Chain Management, allowing students to tailor their education to meet specific career objectives. Depending on the concentration, students may complete the program in as little as one year.

The curriculum emphasizes advanced skills and practical applications in areas such as:

- Logistics: Principles of transportation, inventory, and warehousing.
- Supply Chain Management: Development and execution of strategies aligned with organizational goals.

The program equips graduates for roles such as supply chain analyst, logistics manager, procurement specialist, and operations manager. For additional details, consult the MS-LSCM Student Guidebook or contact the Graduate Programs Manager at the Dr. Sam Pack College of Business.

Mission:

The mission of the Master of Science in Logistics and Supply Chain Management program is to provide a relevant, high-quality, specialized education in various aspects of business that develops learners' critical thinking and decision-making skills. Each concentration of the program develops the emerging executive with knowledge and skills intended to prepare them for a chosen business career paths plus enhances the learner readiness to be an independent life-long learner.

Location(s)/Modality Offered:

The Master of Science in Logistics and Supply Chain Management (MS-LSCM) program is offered as a 100% online degree, providing flexibility for students to balance their studies with professional and personal commitments. Course availability varies by semester; students should refer to the Dr. Sam Pack College of Business Course Rotations or Advising Guides to determine when specific courses are offered and to plan their degree progression effectively.

Requirements:

To pursue the Master of Science in Logistics and Supply Chain Management (MS-LSCM) degree, Tarleton State University undergraduate students within 12 credit hours of completing their bachelor's degree, with a 3.0 GPA or higher on their last 60 hours of coursework, may request Provisional Enrollment. To do so, students must work with the Dr. Sam Pack College of Business COB Graduate Program Manager (https://www.tarleton.edu/cob/graduate-advising/) to complete the Graduate Student Provisional Form, enabling early registration for graduate courses.

The MS-LSCM program does not require leveling courses, making it accessible for students with diverse academic backgrounds.

For more detailed information about degree requirements and program policies, consult the MS-LSCM Student Guidebook: MS-LSCM Student Guidebook (https://tarleton.sharepoint.com/:w:/s/COBA-CollegeofBusinessAdministration/EYBtWuT_I2lBsmEvocrH1LEBaqMYZT-uFw2Fl6tqk0so-g/?e=ux1VLi)

LSCM 5301	Logistics and Supply Chain Management	3
LSCM 5398	Risk Management	3
MGMT 5312	Project Management	3
BANA 5301	Business Analytical Statistics	3
LSCM 5380	Logistics and Supply Chain Management Strategy	3
LSCM 5330	Supply Chain Analytics	3
ENGL 5327	Executive Writing	3
or MGMT 5303	Managerial Communication	
Total Hours		**21**

Logistics - NonThesis

LSCM 5311	Transportation Management	3
LSCM 5313	Logistics Operations	3
BANA 5320	Prescriptive Analytics	3
Total Hours		**9**

Logistics - Thesis

LSCM 5311	Transportation Management	3
LSCM 5313	Logistics Operations	3
BANA 5320	Prescriptive Analytics	3
LSCM 5088	Thesis	3
LSCM 5088	Thesis	3
Total Hours		**15**

Supply Chain Management - NonThesis

LSCM 5321	Supply Chain Management	3
LSCM 5322	Global Supply Chain Management	3
LSCM 5323	Strategic Sourcing	3
Total Hours		**9**

Supply Chain Management - Thesis

LSCM 5321	Supply Chain Management	3
LSCM 5322	Global Supply Chain Management	3
LSCM 5323	Strategic Sourcing	3
LSCM 5088	Thesis	3
LSCM 5088	Thesis	3
Total Hours		**15**

Other Information

- **Academic Appeals Process**: Tarleton's Dr. Sam Pack College of Business adheres to the university's policies on academic appeals. Students experiencing academic grievances should consult the **Satisfactory Academic Performance** section on the Student Services and Resources (https://www.tarleton.edu/cob/student-services-and-resources/) page. This resource provides clear guidance on the steps for addressing and resolving academic concerns. For further assistance, students are encouraged to contact the appropriate university support services.
- **Netiquette (https://www.tarleton.edu/cob/netiquette/):** Learners are expected to communicate respectfully, respond promptly, and actively participate in discussions and group activities to ensure a collaborative and effective learning environment.
- **Minimum Technology Requirements (https://www.tarleton.edu/cob/minimum-technology-requirements/):** Students enrolled in programs within Tarleton's AACSB-accredited Dr. Sam Pack College of Business must meet minimum technology requirements to ensure seamless access to course materials and online learning activities. Requirements include a reliable computer, high-speed internet connection, and standard productivity software such as

Microsoft Office. Additional recommendations may include specific software or tools relevant to the program, as outlined in advising guides or course syllabi. For further assistance, students can access university technical support services.

- **Computer Skills and Digital Information Literacy Skills (https://www.tarleton.edu/cob/computer-skills-and-digital-information/):** To succeed in your courses course, students should possess essential skills such as time management, critical thinking, effective communication, and basic technical proficiency relevant to the course content.
- **Vendor Privacy Statements (https://www.tarleton.edu/cob/vendor-privacy-statements/):** Students are encouraged to review the privacy policies of tools used in your courses to understand how their data is managed. Use of these tools implies agreement with their terms.
- **Technical Support (https://www.tarleton.edu/cob/technical-support/):** For technical support with tools used in your courses, refer to the vendor support resources provided for troubleshooting and assistance. These resources offer guidance to resolve common issues effectively.
- **Accessibility Support (https://www.tarleton.edu/cob/accessibility-support/):** For accessibility support services related to tools used in your courses, visit the vendor accessibility pages provided to ensure inclusive and equitable access. These resources address common accessibility concerns and offer assistance.
- **Academic Support Services (https://www.tarleton.edu/cob/academic-support-services/):** Tarleton's Dr. Sam Pack College of Business offers various academic support services to help students succeed, including orientations for undergraduate and graduate programs, library services, the Math Achievement Center, the Writing Center, and the Tutoring and Learning Center. These resources provide personalized support, from enhancing writing skills to developing effective learning techniques.
- **Student Services and Resources (https://www.tarleton.edu/cob/student-services-and-resources/):** Tarleton's Dr. Sam Pack College of Business offers a wide range of resources to support student success, including academic advising, registration guidance, financial aid assistance, and counseling services. Additional support includes tools for scholarships, veteran services, and career development, with specialized resources like internships and student organizations to enhance professional growth.
- **Vendor Accessibility Statements (https://www.tarleton.edu/cob/vendor-accessibility-statements/):** The Dr. Sam Pack College of Business is committed to providing accessible technology for all students. Accessibility statements for all required technologies used in COB courses, including tools like Canvas, Adobe, Microsoft, Pearson products, and Zoom, are available to ensure equitable access. These statements outline the accessibility features and accommodations provided by each vendor to support an inclusive learning environment.
- **Graduate Online Orientation (https://tarleton.instructure.com/courses/19005/):** The Graduate Online Orientation introduces new graduate students to the resources, expectations, and academic culture of the Dr. Sam Pack College of Business (DSPCOB). This self-paced program covers key aspects of graduate studies, including navigating the online learning environment, utilizing university services like the library and writing center, and understanding program policies and procedures. Orientation ensures that students feel confident and prepared to succeed in their academic journey.
- **Graduate Course Rotations (https://tarleton.sharepoint.com/:x:/s/COBA-CollegeofBusinessAdministration/EaVYeJKX59xLhjf-0E1vFPkBy-2RSy8J_sfvGduuu1K8fA/?e=9antul):** Graduate Course Rotations provide a structured schedule of when specific graduate courses are offered across semesters. This information helps students plan their academic paths efficiently, ensuring they can meet degree requirements within their desired timeline. Rotations typically detail which courses are available in the fall, spring, and summer semesters and indicate whether they are offered online, in-person, or in hybrid formats.
- **DSPCOB Syllabi (https://tarleton.simplesyllabus.com/en-US/syllabus-library/?organization_id=959fb73a-4c87-429b-b594-b6478f07c5b2):** The DSPCOB Syllabi repository gives students access to detailed course syllabi for all graduate and undergraduate programs within the college. Each syllabus outlines the course objectives, topics covered, grading criteria, required materials, and policies on academic integrity, attendance, and participation. The syllabi serve as a roadmap for academic success, offering clarity on expectations and resources for each course.
  - DSPCOB Syllabi Repository (https://tarleton.sharepoint.com/:f:/s/COBA-CollegeofBusinessAdministration/EmCXrId_dflHuYGPgq8EwJIBdOYJhbXS9ewutrtVFGbR-A/?e=Eom9Kh) (Syllabi prior to the implementation of Simple Syllabus implemented for Spring 2025)
- **Master of Business Administration (MBA) (https://youtu.be/GEWQZGLLCe8/)**
  - Program Flyer (https://tarleton.sharepoint.com/:p:/s/COBA-CollegeofBusinessAdministration/EUvCKMij3SNEvmJYSYrUyNwBofYn8NQTxGRrAd3t6uKTFw/?e=E73gAZ)
  - Webinar (https://youtu.be/6gRiU2gC_1s/?si=U93XWf65OPJSBI4B)
  - Student Guidebook (https://tarleton.sharepoint.com/:w:/s/COBA-CollegeofBusinessAdministration/EXjLgcW1GPpIhwHNfR_PJ8IByx1F_Y58cFopySjiHIF-kg/?e=O69cdK)
  - Advising Guide – Traditional (https://tarleton.sharepoint.com/:p:/s/COBA-CollegeofBusinessAdministration/EWi8MEHSQGhMo_GE3qS_pu0BqZa0DYKXKWlknbJL6Vn6UQ/?e=8Hfrq8)
  - Advising Guide (F1-International Students) (https://tarleton.sharepoint.com/:p:/s/COBA-CollegeofBusinessAdministration/EdGpbkrSZuRBprvfxOYYVhgBdwHBiEeu3LgMUte6p4TZDA/?e=ZV9RnI)
  - Advising Guide – Fast-Track (https://tarleton.sharepoint.com/:p:/s/COBA-CollegeofBusinessAdministration/EdokFOkUguJHshKaqooTRkAB3TASbkiLWv9zf35w2WPq5Q/?e=MK1mAy)
- **MS-Human Resource Management (MS-HRM) (https://youtu.be/QbEfLeWWppg/)**
  - Program Flyer (https://tarleton.sharepoint.com/:p:/s/COBA-CollegeofBusinessAdministration/ESD-M3-VXcJCs33k3VfSkpoBC732pwLhtkPrCEWgCL8AkA/?e=m6aYta)
  - Webinar (https://youtu.be/yt0lao9_Yug/?si=sec6njC3fMMbH8n0)
  - Student Guidebook (https://tarleton.sharepoint.com/:w:/s/COBA-CollegeofBusinessAdministration/EU7j-R3csqBHgAUug9mjCtMBug8h2RNPDoC85Y9PGTMhhA/?e=vAqGIJ)
  - Advising Guide (https://tarleton.sharepoint.com/:p:/s/COBA-CollegeofBusinessAdministration/EawhY_dawmdEtEXOcG2nQzMBGb3G6ltgy1PRq-iGJiZvsg/?e=eVYa9d)
- **(https://tarleton.sharepoint.com/:p:/s/COBA-CollegeofBusinessAdministration/EawhY_dawmdEtEXOcG2nQzMBGb3G6ltgy1PRq-iGJiZvsg/?e=eVYa9d)MS-Logistics and Supply Chain Management (MS-LSCM)**
  - (https://tarleton.sharepoint.com/:w:/s/COBA-CollegeofBusinessAdministration/EYBtWuT_I2lBsmEvocrH1LEBaqMYZT-uFw2Fl6tqk0so-g/?e=ux1VLi)Program Flyer (https://tarleton.sharepoint.com/:p:/s/COBA-CollegeofBusinessAdministration/ETZhZCBuH_pHkScmQui7qtsBURkhG21TGGJnRUtIzex_Ig/?e=et3N55)
  - Webinar (https://youtu.be/6XV-YeFoBig/?si=MAr2Eaq2pAKrXkm9)
  - Student Guidebook (https://tarleton.sharepoint.com/:w:/s/COBA-CollegeofBusinessAdministration/EYBtWuT_I2lBsmEvocrH1LEBaqMYZT-uFw2Fl6tqk0so-g/?e=ux1VLi)
  - Advising Guide (https://tarleton.sharepoint.com/:p:/s/COBA-CollegeofBusinessAdministration/EcfRWjJ-J7JCrtyrGpJODoMBejpnGWp5YIsiXFsGUD6NoA/?e=MfCtWH)
- **MS-Management**
  - Program Flyer (https://tarleton.sharepoint.com/:p:/s/COBA-CollegeofBusinessAdministration/EaXTyrBHHrNEnZhD_u1wQIEB2HbNIs9nEQ1IBcwNbA1_eA/?e=jO3cy9)
  - Webinar (https://youtu.be/dQ1pvKujGtM/?si=zxTCVDQMrPRRus_M)
  - Student Guidebook (https://tarleton.sharepoint.com/:w:/s/COBA-CollegeofBusinessAdministration/EZ_clqXQvX1CnUKZkm9R1PgBY4HTHQUO51BDJvKDbEvgtg/?e=4meckp)

- Advising Guide (https://tarleton.sharepoint.com/:w:/s/COBA-CollegeofBusinessAdministration/EdPRRJNOSm9Ni32InYei_WwBdI87EiVhPm1oitttEc39iw/?e=S97mFD)

Questions?

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Professors

- Baeza, Dr. Miguel
- Freed, Dr. Rusty
- Heller, Dr. Nathan
- Joiner, Dr. Sue
- Martinson, Dr. Brian
- McCamey, Dr. Randy
- Notgrass, Dr. David

Associate professors

- Ashton, Dr. Triss
- Cavazos, Dr. David
- Dittfurth, Dr. Ed
- Hall, Dr. Reggie
- Heller, Dr. Jake
- Krueger, Dr. Dianna
- Mullens, Dr. Drake
- Shaw, Dr. Joanna
- Richardson, Dr. Rick

Assistant professors

- Brown, Dr. Bryn
- Dinulescu, Dr. Catalin
- Foster, Ms. Christi

Instructor

- Brown, Ms. Angie
- Dummar, Mr. Joe
- Foster, Ms. Christi
- Leaverton, Mr. Bill
- Mosby, Mr. David

Business Administration Courses

COBA 5100. Foundations of Management. 2 Credit Hours (Lecture: 1.5 Hour, Lab: 0 Hours).
Framework of the functions and development of management practice. Emphasis on management roles and approaches, applied ethics, and leadership of others in a dynamic, global environment. May be required for admission to Graduate Business Programs. May not be used as credit toward Graduate Business Programs.

COBA 5101. Foundations of Accounting. 2 Credit Hours (Lecture: 1.5 Hour, Lab: 0 Hours).
This course presents the foundational principles of accounting to graduate students without a previous foundation. Students will be introduced to the basics of bookkeeping, the accounting cycle, financial statement generation, and basics of interpretation of financial statements. May be required for admission to Graduate Business Programs. May not be used as credit toward Graduate Business Degrees.

COBA 5102. Foundations of Finance. 2 Credit Hours (Lecture: 1.5 Hour, Lab: 0 Hours).
Introduction to financial concepts with a corporate finance perspective: calculation and interpretation of financial ratios, time value of money (TVM), valuation of corporate bonds. May be required for admission to Graduate Business Programs. May not be used as credit toward Graduate Business Degrees. Prerequisite: Recommendation: Foundations of Accounting or equivalent, and Foundations of Economics or equivalent.

COBA 5103. Foundations of Statistics. 2 Credit Hours (Lecture: 1.5 Hour, Lab: 0 Hours).
Introduction to statistics and probability including: Methods of sampling, classifying, analyzing, and presenting numerical data; frequency distribution, averages, dispersion, times series analysis, correlation, and forecasting for business purposes May be required for admission to Graduate Business Programs. May not be used as credit toward Graduate Business Degrees.

COBA 5104. Foundations of Economics. 2 Credit Hours (Lecture: 1.5 Hour, Lab: 0 Hours).
An integrated survey of both microeconomics and macroeconomics. May be required for admission to Graduate Business Programs. May not be used as credit toward Graduate Business Degrees.

COBA 5105. Foundations of Marketing. 2 Credit Hours (Lecture: 1.5 Hour, Lab: 0 Hours).
This course introduces the principles and concepts of the design, distribution, pricing, and promotion of goods, services, people, places, and causes offered by profit-seeking and non-profit organizations. It also examines both national and international markets and includes an application of the legal and ethical constraints on the marketing field. May be required for admission to Graduate Business Programs. May not be used as credit toward Graduate Business Degrees.

COBA 5301. Foundations of Accounting. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The first component of this course presents the foundational principles of accounting to graduate students without a previous foundation. The second component of this course presents the foundational principles of statistics for graduate students without a previous foundation.

COBA 5302. Foundations of Economics and Finance. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A foundational course in economics and finance for those students without sufficient preparation. The first component will present the basics of economics. The second component will present the basics of finance.

COBA 6101. Foundations of Accounting. 2 Credit Hours (Lecture: 1.5 Hour, Lab: 0 Hours).
This course presents the foundational principles of accounting to graduate students without a previous foundation. Students will be introduced to the basics of bookkeeping, the accounting cycle, financial statement generation, and basics of interpretation of financial statements. May be required for admission to Graduate Business Programs. May not be used as credit toward Graduate Business Degrees.

COBA 6102. Foundations of Finance. 2 Credit Hours (Lecture: 1.5 Hour, Lab: 0 Hours).
Introduction to financial concepts with a corporate finance perspective: calculation and interpretation of financial ratios, time value of money (TVM), valuation of corporate bonds. May be required for admission to Graduate Business Programs. May not be used as credit toward Graduate Business Degrees.

Business Analytics Courses

BANA 5085. Business Analytics Seminar. 1-6 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course addresses selected topics of current importance in business analytics. May be repeated for credit when topics vary.

BANA 5086. Problems. 1-6 Credit Hours (Lecture: 1-6 Hours, Lab: 0 Hours).
This course offers students the opportunity to study analytics topics and perform research within the student's area of interest as directed by the responsible professor. Prerequisite: Approval of the department head.

BANA 5090. Special Topics in Business Analytics. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 1-3 Hours).
An examination of current topics in business analytics. Readings required from current analytics publications and other related periodicals. May be repeated for credit when topics vary.

BANA 5301. Business Analytical Statistics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course emphasizes statistical data analysis using statistical programming languages, and the reporting of results in a manner consistent with contemporary business practice. This course starts with a review of descriptive statistics, probability theory, and a review of probability under various distribution conditions. It then advances into univariate hypothesis testing and introduces non-parametric data analysis. Statistical programming is introduced and applied across the course. Prerequisite: undergraduate statistics (a minimum of 3 semester credit hours).

BANA 5310. Business Applied Data Mining. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course focuses on using statistical techniques to solve business problems across the enterprise and create competitive advantage from information held in data warehouses. The techniques covered include decision trees, cluster analysis, pattern matching, vector auto-regression, co-integration, and event study methodology. Prerequisite: BANA 5301 or Department Head approval.

BANA 5320. Prescriptive Analytics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Business prescriptive analytics seek the best course of action among many choices. This course focuses on using techniques to solve complex business problems that involve trade-offs between goals and constraints. The course addresses resource allocation problems under uncertainty. Topics covered include optimization, sensitivity analysis, linear integer and nonlinear programming, network models, decision making under uncertainty, inventory and supply chain models, and an introduction to simulation and queuing models. Prerequisite: BANA 5301 or Department Head approval.

BANA 5391. Business Analytics Research. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The goal of the business data analyst is to give the business enterprise a competitive advantage. This capstone course combines database management, data visualization, statistical data exploration, data mining, and predictive modeling to address business problems. The student is required to interpret and understand the business problem and develop an analytical approach to solving the problem. The course introduces the student to Python programming and requires the student to communicate the solution to the problem following contemporary business communication. Prerequisites: ECON 5311, BANA 5310, and BANA 5320.

Human Resource Management Courses

HRMT 5086. Problems. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 0 Hours).
This course offers students the opportunity to study human resource management topics and perform research within the student's area of interest as directed by the responsible professor. Prerequisite: approval of the department head.

HRMT 5090. Select Topics in Human Resource Management. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 0 Hours).
An examination of current topics in human resource management. Readings required from current HRM publications and other related periodicals. May be repeated for credit when topics vary.

HRMT 5301. Law & Regulation in Human Resources. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Examines legal issues and regulatory processes related to employment relationships, equal employment opportunity, privacy, employment testing and staffing, copyrights and patents, compensation and benefits, employee/labor relations, and occupational health and safety.

HRMT 5302. Human Resource Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Presents the fundamental principles and techniques of global personnel management and examines the management of human resources from the point of view of the personnel officer, the operational manager and the employee. Examines the responsibilities of organizational leadership for incorporating human resource issues in strategic planning and initiatives. Emphasis is placed on current legal considerations, issues and research.

HRMT 5303. Training & Development. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Focuses on elements of employee training and development within organizations and the management of the human resource development process. Examines management issues, identifying and responding to training needs, cost/benefit analysis, four-phase training evaluation, and the selection and development of training staff. Overall Course Objective As a result of this course, students will be able to successfully plan, design, and develop a business training program that effectively addresses a business problem.

HRMT 5314. Workforce Planning & Talent Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Focuses on the legal, ethical and organizational considerations related to recruitment, assessment, selection, placement and appraisal of employees and managers within various types of organizations. Career development and record-keeping will also be addressed as will utilization of human resources within organizations including the use of pre and post-employment tests and other techniques in human resource management.

HRMT 5316. Compensation Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Analyzes the theories, concepts, operational practices and research related to managing comprehensive compensation programs. Various types of compensation plans, including job evaluation levels and wage structures are investigated. Emphasis is placed on the development of sound compensation programs which consider current trends, legal implications and social requirements. Quantitative applications are required to analyze various case studies and problems.

HRMT 5324. Employee & Labor Relations. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Exploration of the labor union movement and the process of collective bargaining, the formation of a union, labor agreement negotiation, labor agreement administration, grievance processes, and arbitration and mediation. Labor law and legal issues in labor relations are explored extensively to include the National Labor Relations Act and the functions of the NLRB. Negotiation skills are developed via mock labor contract negotiations. Prerequisite: Admission to the COBA Graduate Program.

HRMT 5340. Effective Employee Relations. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course presents legal and practical methods for handling employee relations issues. Special emphasis is given to handling employee complaints, resolving employee conflicts, assessing and conducting internal investigations, discipline and sanctions, coaching managers with employee issues, performance management, voluntary separation and job terminations that are on-the-job behavior-related. This course integrates the many aspects between human resource management, organizational development, and human relations.

HRMT 5343. Conflict Resolution Practices. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides students the opportunity to develop skills at managing conflict using various formal and informal conflict resolution processes including negotiation, mediation, arbitration, facilitation, shuttle facilitation, and restorative conferences. Role plays, discussions, and case studies in a variety of contexts will provide students the opportunity to practice skills necessary to effectively approach and resolve conflict in the workplace. Prerequisite: HRMT 5340.

HRMT 5355. Internship in Human Resource Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Provides work experience in the human resource field under the supervision of a faculty-approved management sponsor. Emphasis is placed on the application of human resource management skills to real world, practical problems and situations. A minimum of 20 work hours per week is expected, with a total of 200-300 on-the-job hours required during the semester. Prerequisite: Completion of 12 graduate semester hours in Human Resource Management, preregistration coordination and approval of the course instructor. Field experiences fee $50.

HRMT 5380. Strategic Human Resources. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Coverage of the special Human Resource issues related to strategy formulation, competitive advantage, and the linkage between HR strategy and the mission, vision, and goals of corporations that lead to organizational effectiveness. An integrated view of the HR disciplines addressed in the MS HRM core curriculum and the interplay among the various disciplines. Course should be taken in the last semester of the student's program. This is the capstone course for the MS HRM degree program. Prerequisite: MS HRM student in last semester or instructor approval required.

HRMT 5388. Thesis. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Scheduled when the student is ready to begin the thesis. No credit until the thesis is completed. Prerequisite: Approved research methodology course and approval of instructor of record.

HRMT 5389. Global Human Resource Management Practices. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of basic international business concepts, cultural literacy, and discipline specific content are applied to practical experiences and activities in the foreign country visited. Graduate students will be required to complete an extensive research project in addition to other course requirements. A study abroad at the student's expense is required. Prerequisites: Admission into a COB graduate program and permission of the instructor.

HRMT 5391. Human Resource Seminar. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Selected topics of current importance to human resource management. May be repeated for credit when topics vary.

Logistics and Supply Chain Management Courses

LSCM 5086. Problems. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 0 Hours).
This course offers students the opportunity to study logistics or supply chain management topics and perform research within the student's area of interest as directed by the responsible professor. Prerequisite: Approval of the Department Head.

LSCM 5088. Thesis. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 0 Hours).
Scheduled when the student is ready to begin the thesis. No credit until the thesis is completed. Prerequisites: Approved research methodology course and approval of instructor of record.

LSCM 5301. Logistics and Supply Chain Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Overview of the logistics and supply chain industry. All functional areas of supply chain management are explored in an integrated view of procurement, manufacturing and operations management, transportation and logistics, inventory and warehousing, demand planning, scheduling, network design, collaboration, and performance measurement.

LSCM 5311. Transportation Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Principles of transportation covers the role of transportation systems within the supply chain; environmental and economic impacts; modal components; managerial and economic aspects of the various modes, and applications to domestic and international operations.

LSCM 5313. Logistics Operations. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines logistics and transportation services, including customer service, order fulfillment, distribution operations, purchasing, transportation services, third-party logistics providers, and network design.

LSCM 5321. Supply Chain Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Develop an understanding of key drivers of supply chain management and their inter-relationships with the firm's strategy, value-chain, performance, and other functional areas. Focus on developing analytic, problem-solving, and cost /benefit trade-off managerial skills. This course presents a comprehensive supply chain management framework that emphasizes contemporary topics such as co-opetition, automation/technology, uncertainty, risk management, quality, and sustainability. The role of logistics and procurement within the overall supply chain management framework is also introduced and discussed.

LSCM 5322. Global Supply Chain Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Global Supply Chain Management involves the flows of materials and information among all of the firms in different locations that contribute value to a product, from the source of raw materials to end customers. The course will integrate issues from logistics, marketing (channels of distribution), and operations management to develop a broad understanding of a global supply chain by considering factors including geographic distribution of resources and demand, exchange rate risk, availability and reliability of suppliers in different regions, and consumer characteristics in different markets. A strategic perspective will focus on relatively long-term decisions involving the configuration of processes, product designs, investment in productive resources, and development of partnerships with suppliers and channels of distribution. The course is designed to refine the intuition developed from models to develop managerial insights.

LSCM 5323. Strategic Sourcing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Fundamentals of strategic sourcing and supply chain management. Integration and coordination of product innovation, sourcing, manufacturing, distribution, and logistics for global competitiveness.

LSCM 5330. Supply Chain Analytics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Focuses on the application of quantitative techniques. Problems addressed include demand forecasting, inventory control, and network design analysis, and simulation. Additionally, analytical topics related to enhancing the SCM strategy, design, execution, and people are covered. Prerequisite: BANA 5301 or approval of the department head.

LSCM 5380. Logistics and Supply Chain Management Strategy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Analysis and solution of supply chain management cases and simulations. Develop an understanding of key drivers of logistics performance and their inter-relationships with strategy and other functional areas. Situations involving purchasing, manufacturing, logistics, and transportation as an integrated supply chain are explored. Focus on developing analytic, problem-solving, and cost trade-off management skills. Explore the eight basic best practices teamwork, communication, and job skills.

LSCM 5382. Internship in Logistics and Supply Chain Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Provides work experience in the logistics/supply chain management field under the supervision of a faculty-approved management sponsor. Emphasis is placed on the application of logistics/supply chain management skills to real world, practical problems and situations. A minimum of 20 work hours per week is expected, with a total of 200-300 on-the-job hours required during the semester. Prerequisites: Completion of 12 graduate semester hours in Logistics and Supply Chain Management; preregistration coordination and approval of the course instructor.

LSCM 5385. Logistic & Supply Chain Management Seminar. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course addresses selected topics of current importance in logistics and supply chain management. May be repeated for credit when topics vary.

LSCM 5390. Special Topics in Logistics and Supply Chain Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An examination of current topics in logistics and supply chain management. Readings required from current logistics or supply chain management publications and other related periodicals. May be repeated for credit when topics vary.

LSCM 5398. Risk Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The supply chain is a complex sequence of processes, tools, and people involved in producing and distributing products and services. It is inherently susceptible to risk and its associated impacts. This course addresses the supply chain risk management principles and provides learners a strategic framework for risk identification, assessment, monitoring, and control, to benefit the overall firm's performance. The students will learn to examine the nature of supply chain risk, analyze the risk, and mitigate or manage the risk and its associated impact on the firm. In doing so, students will apply research and a range of appropriate risk management tools and techniques to the supply chain. Students will acquire a solid understanding of the supply chain risk management framework. Students will master risk management principles, techniques, models, and tools used to identify, estimate, evaluate, communicate, monitor, and control risks in the supply chain. Students will work in teams to research and address supply chain risks for a real firm or reflect on specific case studies.

Management Courses

MGMT 5086. Problems. 1-6 Credit Hours (Lecture: 1-6 Hours, Lab: 0 Hours).
This course offers students the opportunity to study management topics and perform research within the student's area of interest as directed by the responsible professor. Prerequisite: Approval of the department head.

MGMT 5090. Special Topics in Management. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 1-3 Hours).
An examination of current topics in management. Readings required from current management publications and other related periodicals. May be repeated for credit when topics vary.

MGMT 5301. Organizational Behavior. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Behavioral theory in organizational context. A study of individual and group dynamics in the business environments. Specific emphasis is given to leadership, motivation, communication, employee supervision, and morale in all organizational settings.

MGMT 5303. Managerial Communication. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is an overview of foundations for professional success in business and professional communication. The course will focus on applying communication and management theories to practices in business organizations, implementing optimal business and professional communication strategies, and focus on effective oral and written communication skills for business leaders.

MGMT 5307. Responsibilities and Ethics of Leadership. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An examination of an organization's social and environmental responsibilities to its employees, customers, and the general public. Practical emphasis is given to the case study method for evaluating the performance of various organizations. Establishes a theoretical framework for understanding ethics, principles and values of leadership as they affect the organization, the organizational environment and society.

MGMT 5310. Leadership Development. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Leadership is explored through the process of developing oneself as a leader while developing followers. Emphasis is placed upon learning the skills necessary to lead through the ethical use of influence in order to achieve organizational strategic goals.

MGMT 5311. Managing Operations and Services. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of concepts, models and methods used to effectively manage the manufacturing and/or service operations of for-profit and not-for-profit organizations. Emphasis will be placed on the design and use of cross-functional operations planning, control, and support systems. Topics of contemporary relevance will be examined to include supply chain management, enterprise resource planning, time-based competition, and quality improvement.

MGMT 5312. Project Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Project Management is a growing field in many disciplines from manufacturing to marketing and from technology to training. Students will plan, document, and execute a simulated or real project while learning the principles and practices of project management.

MGMT 5313. Small Business Leadership. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Provide students with an overview of entrepreneurial best practices for leading through influence while incorporating self-reflection, strategic management, and high-performance team leadership validated practices for successful ventures. Explore the implications for comprehensive leadership abilities in the small business context and integrate fundamental insights from the entrepreneurship, leadership, and strategic management disciplines. Identify strategies and techniques for effectively leading small and medium-sized enterprise start-ups, and existing firms.

MGMT 5314. Family Business Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Family business management explores firm interworking's within the small business context. The challenges of leading family firms are more complex than other small businesses due to family relationships, profit generation pressures, and self-preservation of elder family members to retain positions of power and influence. The course explores three management disciplines germane for understanding family firm complexities: (a) Founder-CEOs challenges, (b) firm culture, and (c) estate planning. During the course we will also examine family firm culture focusing on the individual, group, and organizational level influenced by entrepreneurial mindset governance structures. Estate planning processes influencing family firm vision, power, personality-driven governance structures, and succession planning.

MGMT 5315. Entrepreneurship Strategy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The entrepreneurship strategy course provides conceptual instruction for the conceptualizing, designing, organizing, and managing new entrepreneurial ventures. The course explores earlier stages of the entrepreneurial venture and scalability through mature life cycles in the following order: (a) discovery phase, (b) market research, (c) product/service, (d) venture scaling, (e) sale/ownership and (f) entrepreneurship theories, and (g) frameworks.

MGMT 5325. Trends and Issues in Entrepreneurship. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An examination of trends, topics, and opportunities in the entrepreneurial/small business arena. The course will explore the ever-changing environment of the 21st century entrepreneur with a focus on emerging trends, current research, popular press publications and articles, and other present day resources. Identification of potential impact, implications, and/or opportunities for the current or prospective entrepreneur will be a focus.

MGMT 5330. Artificial Intelligence in Business. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course prepares the emerging executive for the adaptation of artificial intelligence (AI) in modern business. It explores the best practices, risks, and challenges of integrating AI systems into routine operations. The course introduces AI systems currently available in the marketplace, how to analyze and select among these systems from a cost-benefit perspective, project teams, ethical considerations, and how introducing AI systems can impact the organization's strategy and culture. The course also addresses strategic planning and budgeting considerations.

MGMT 5354. International Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Coverage of the management issues corporations face when doing business internationally. Topics include the impact of culture, role of international relations, ethical decision-making, international strategic management, organizational behavior and human resource management.

MGMT 5368. Organizational Development & Leading Change. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Apply behavioral science research, theories, and practices and analyze strategies for organizational change and development. This includes the study of change models, interventions, communication strategies, and motivation and behaviors, with a focus on leading change initiatives. Discovery of frameworks helpful in guiding and leading the change process are highlighted.

MGMT 5378. Strategic Business Planning & Policy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The course provides students with an opportunity to integrate various topics related to strategic execution. The perspective of the organization as a total system, which encompasses internal, specialized sub-systems, interacting with an external, dynamic environment serves as the foundation of study. The emphasis will be on the development, implementation, and analysis of organization strategies and policies that impact a firm's survival and success in a progressively competitive global marketplace. Models for strategic formulation, implementation, and control are analyzed for the facilitation of an integrated understanding of the courses that comprise the MSM curriculum. Readings and lectures illustrate strategic management theories and frameworks while case discussions, experiential exercises, and team projects provide opportunities for application.

MGMT 5388. Thesis. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Scheduled when the student is ready to begin the thesis. No credit until the thesis is completed. Prerequisite: Approved research methodology course and approval of instructor of record.

MGMT 5389. Global Management Practices. 3 Credit Hours (Lecture: 4.5 Hours, Lab: 0 Hours).
A study of basic international business concepts, cultural literacy, and discipline specific content are then applied to practical experiences and activities in the foreign country visited. A study abroad at the student's expense is required. Student may complete a maximum of six hours of COBA sponsored study abroad toward degree completion. Prerequisites: Admission into a COBA graduate program and permission of the instructor.

MGMT 5391. Management Seminar. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Selected topics of current importance to management. May be repeated for credit when topics vary.

MGMT 5395. Internship. 3 Credit Hours (Lecture: 1 Hour, Lab: 8 Hours).
Prepared and supervised work experience in a management-related position with a public or private business organization. May be repeated for a total of 6 hours credit. Prerequisite: Approval of MBA Director. Field experiences fee $50.

Department of Marketing and Computer Information Systems

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The Marketing and Computer Information Systems department in the AACSB-accredited Dr. Sam Pack College of Business at Tarleton State University stands as a vibrant academic center, distinguished for its commitment to excellence in two specialized graduate programs. Offering the MS in Information Systems (MS-IS) and MS in Marketing (MS-Marketing), the department's faculty, enriched by extensive industry expertise, provides a rigorous education that meets the high standards set by AACSB accreditation. This globally recognized accreditation reflects the department's dedication to fostering academic quality and innovation. Students benefit from a comprehensive curriculum that seamlessly integrates marketing strategy and advanced information systems, preparing them to navigate and excel at the dynamic intersections of marketing and technology. By leveraging cutting-edge knowledge, fostering collaboration, and emphasizing real-world applications, the department equips graduates with the skills to drive business success in a competitive, tech-driven world.

Master of Science in Information Systems

The MS Information Systems program at Tarleton State University is designed to equip you with advanced knowledge and skills in information technology, preparing you for leadership roles in the rapidly evolving field. The curriculum focuses on areas such as database management, networking, IT project management, business intelligence, and system analysis, providing a comprehensive understanding of the strategic use of information systems in organizations. With experienced faculty and hands-on learning opportunities, as a graduate of the program, students will emerge well-prepared to address the complex challenges of the modern IT landscape. The MS in Information Systems is designed for working professionals to complete 36 hours of graduate credit, 100% online. The program is flexible and allows you to complete classes remotely while balancing work and life demands. If you are interested in pursuing their doctorate, a thesis option is available and encouraged. Reach out to the COB Graduate Programs Manager (cob.graduate@tarleton.edu) for more information.

Mission:

The mission of the Master of Science in Information Systems (MS-IS) degree program is to provide a relevant, high-quality education that develops learners' decision-making skills in the productive and profitable utilization of computer information systems, preparing them for success in their careers and life-long learning.

Requirements:

To pursue this degree, if you are a Tarleton State University undergraduate student within 12 hours of obtaining your degree and you have a 3.0 GPA or higher on your last 60 hours of coursework, you can request Provisional Enrollment. You must work with the COB Graduate Program Manager (https://www.tarleton.edu/cob/graduate-advising/) to complete the Graduate Student Provisional Form, enabling you to register for graduate classes early. You will need reliable Internet access, basic computer skills, ample time to dedicate to completing the required course content, and the desire to complete an advanced degree that can provide opportunities for career advancement.

After you are admitted to the College of Graduate Studies, your transcript, application, essay, and test scores (if applicable) will be evaluated by the COB Graduate Program Manager (https://www.tarleton.edu/cob/graduate-advising/).

Before completing 12 hours of graduate credit in the MS-IS program, you should contact the COB Graduate Program Manager (https://www.tarleton.edu/cob/graduate-advising/) and request that an official degree plan be prepared. You may petition for changes in this degree plan later, but the COB Graduate Program Manager (https://www.tarleton.edu/cob/graduate-advising/) and the Dean of the College of Graduate Studies must approve these changes.

Accelerated Program

The MS-Information Systems includes an accelerated option, allowing you, as an undergraduate, to begin your graduate studies early, shortening your time to graduation and saving you money. You should conider this option early in your undergradaute program and work with your Academic Adviser (https://www.tarleton.edu/cob/undergraduate-advising/) to select the appropriate degree plan options:

- BS-CIS: Accelerated CIS/MS Information Systems
- BAAS-IT: Accelerated IT/MS Information Technology
- BBA-MIS: Accelerated MIS/MS Information Systems

When participating in one of these accelerated programs, in your second to last undergraduate semester, you should work with the COB Graduate Programs Manager (cob.graduate@tarleton.edu) to complete the Graduate Student Provisional Form (https://www.tarleton.edu/degrees/wp-content/uploads/sites/140/2022/06/New_Provisional_Form.pdf), enabling you to register for graduate classes. In your final semester, you will take BCIS 5311 plus an additional BCIS graduate elective, to serve as undergraduate electives as well as kickstart your graduate degree. In your final semester, you should also complete your application to the College of Graduate Studies in preparation for admission into the graduate program. Accelerated option details may be viewed below in each respective Program Requirements sections.

Master of Science in Information Systems Program Requirements

BCIS 5304	Telecommunications for Managers	3
BCIS 5307	Systems Analysis for Managers	3
BCIS 5311	Managing Information Systems	3
BCIS 5316	Applied Database Management	3
BCIS 5351	IT Project Management	3
BCIS 5392	Business Intelligence Systems	3
BCIS 5381	Strategic Information Systems	3
Total Hours		**21**

Non-Thesis

BCIS 5000 Level Electives		15
Total Hours		**15**

Thesis/Research

BCIS 5000 Level Electives		9
BCIS 5388	Thesis	3
BCIS 5388	Thesis	3
Total Hours		**15**

Master of Science in Marketing

The MS in Marketing program at Tarleton State University is tailored to cultivate a deep understanding of contemporary marketing strategies and trends. You will engage in a curriculum that covers essential areas such as marketing research, advanced consumer behavior, digital marketing and analytics, new product management, and advertising strategy. Guided by expert faculty and enriched with practical experiences, you will be equipped with the knowledge and skills needed to navigate and excel in dynamic marketing environments.

Requirements:

To pursue this degree, if you are a Tarleton State University undergraduate student within 12 hours of obtaining your degree and you have a 3.0 GPA or higher on your last 60 hours of coursework, you can request Provisional Enrollment. You must work with the COB Graduate Program Manager (https://www.tarleton.edu/cob/graduate-advising/) to complete the Graduate Student Provisional Form, enabling you to register for graduate classes early. You will need reliable Internet access, basic computer skills, ample time to dedicate to completing the required course content, and the desire to complete an advanced degree that can provide opportunities for career advancement.

After you are admitted to the College of Graduate Studies, your transcript, application, essay, and test scores (if applicable) will be evaluated by the COB Graduate Program Manager (https://www.tarleton.edu/cob/graduate-advising/).

Before completing 12 hours of graduate credit in the MS-Marketing program, you should contact the COB Graduate Program Manager (https://www.tarleton.edu/cob/graduate-advising/) and request that an official degree plan be prepared. You may petition for changes in this degree plan later, but the COB Graduate Program Manager (https://www.tarleton.edu/cob/graduate-advising/) and the Dean of the College of Graduate Studies must approve these changes.

Required Courses		
MKTG 5308	Marketing Strategy	3
MKTG 5315	Marketing Research	3
MKTG 5316	Advanced Consumer Behavior	3
MKTG 5320	Digital Marketing and Analytics	3
MKTG 5340	New Product Management	3
MKTG 5350	Advertising Strategy	3
Graduate Electives		
MKTG 5000 Level Electives		12
Total Hours		**30**

Other Information

- **Academic Appeals Process**: Tarleton's Dr. Sam Pack College of Business adheres to the university's policies on academic appeals. Students experiencing academic grievances should consult the **Satisfactory Academic Performance** section on the Student Services and Resources (https://www.tarleton.edu/cob/student-services-and-resources/) page. This resource provides clear guidance on the steps for addressing and resolving academic concerns. For further assistance, students are encouraged to contact the appropriate university support services.
- **Netiquette (https://www.tarleton.edu/cob/netiquette/):** Learners are expected to communicate respectfully, respond promptly, and actively participate in discussions and group activities to ensure a collaborative and effective learning environment.
- **Minimum Technology Requirements (https://www.tarleton.edu/cob/minimum-technology-requirements/):** Students enrolled in programs within Tarleton's AACSB-accredited Dr. Sam Pack College of Business must meet minimum technology requirements to ensure seamless access to course materials and online learning activities. Requirements include a reliable computer, high-speed internet connection, and standard productivity software such as Microsoft Office. Additional recommendations may include specific software or tools relevant to the program, as outlined in advising guides or course syllabi. For further assistance, students can access university technical support services.
- **Computer Skills and Digital Information Literacy Skills (https://www.tarleton.edu/cob/computer-skills-and-digital-information/):** To succeed in your courses course, students should possess essential skills such as time management, critical thinking, effective communication, and basic technical proficiency relevant to the course content.
- **Vendor Privacy Statements (https://www.tarleton.edu/cob/vendor-privacy-statements/):** Students are encouraged to review the privacy policies of tools used in your courses to understand how their data is managed. Use of these tools implies agreement with their terms.
- **Technical Support (https://www.tarleton.edu/cob/technical-support/):** For technical support with tools used in your courses, refer to the vendor support resources provided for troubleshooting and assistance. These resources offer guidance to resolve common issues effectively.

- **Accessibility Support (https://www.tarleton.edu/cob/accessibility-support/):** For accessibility support services related to tools used in your courses, visit the vendor accessibility pages provided to ensure inclusive and equitable access. These resources address common accessibility concerns and offer assistance.
- **Academic Support Services (https://www.tarleton.edu/cob/academic-support-services/):** Tarleton's Dr. Sam Pack College of Business offers various academic support services to help students succeed, including orientations for undergraduate and graduate programs, library services, the Math Achievement Center, the Writing Center, and the Tutoring and Learning Center. These resources provide personalized support, from enhancing writing skills to developing effective learning techniques.
- **Student Services and Resources (https://www.tarleton.edu/cob/student-services-and-resources/):** Tarleton's Dr. Sam Pack College of Business offers a wide range of resources to support student success, including academic advising, registration guidance, financial aid assistance, and counseling services. Additional support includes tools for scholarships, veteran services, and career development, with specialized resources like internships and student organizations to enhance professional growth.
- **Vendor Accessibility Statements (https://www.tarleton.edu/cob/vendor-accessibility-statements/):** The Dr. Sam Pack College of Business is committed to providing accessible technology for all students. Accessibility statements for all required technologies used in COB courses, including tools like Canvas, Adobe, Microsoft, Pearson products, and Zoom, are available to ensure equitable access. These statements outline the accessibility features and accommodations provided by each vendor to support an inclusive learning environment.
- **Graduate Online Orientation (https://tarleton.instructure.com/courses/19005/):** The Graduate Online Orientation introduces new graduate students to the resources, expectations, and academic culture of the Dr. Sam Pack College of Business (DSPCOB). This self-paced program covers key aspects of graduate studies, including navigating the online learning environment, utilizing university services like the library and writing center, and understanding program policies and procedures. Orientation ensures that students feel confident and prepared to succeed in their academic journey.
- **Graduate Course Rotations (https://tarleton.sharepoint.com/:x:/s/COBA-CollegeofBusinessAdministration/EaVYeJKX59xLhjf-0E1vFPkBy-2RSy8J_sfvGduuu1K8fA/?e=9antul):** Graduate Course Rotations provide a structured schedule of when specific graduate courses are offered across semesters. This information helps students plan their academic paths efficiently, ensuring they can meet degree requirements within their desired timeline. Rotations typically detail which courses are available in the fall, spring, and summer semesters and indicate whether they are offered online, in-person, or in hybrid formats.
- **DSPCOB Syllabi (https://tarleton.simplesyllabus.com/en-US/syllabus-library/?organization_id=959fb73a-4c87-429b-b594-b6478f07c5b2):** The DSPCOB Syllabi repository gives students access to detailed course syllabi for all graduate and undergraduate programs within the college. Each syllabus outlines the course objectives, topics covered, grading criteria, required materials, and policies on academic integrity, attendance, and participation. The syllabi serve as a roadmap for academic success, offering clarity on expectations and resources for each course.
  - DSPCOB Syllabi Repository (https://tarleton.sharepoint.com/:f:/s/COBA-CollegeofBusinessAdministration/EmCXrId_dflHuYGPgq8EwJIBdOYJhbXS9ewutrtVFGbR-A/?e=Eom9Kh) (Syllabi prior to the implementation of Simple Syllabus implemented for Spring 2025)
- **Masters in Information Systems (MS-Information Systems) (https://youtu.be/1N4dKpn6wYc/)**
  - Program Flyer (https://tarleton.sharepoint.com/:p:/s/COBA-CollegeofBusinessAdministration/EYTH9ztsiF9JuiBLHxfNHlYBg18hMvGLptrQfoCegqjInw/?e=swbWuI)
  - Webinar (https://youtu.be/Rp0QMHDU_HI/?si=UwgcQaZ1Z84FZZlw)
  - Student Guidebook (https://tarleton.sharepoint.com/:w:/s/COBA-CollegeofBusinessAdministration/EcFAJ08_8utOukwr5zV03hQBHW4mLjrf_7KTGPHqU1Ni_w/)
  - Advising Guide (https://tarleton.sharepoint.com/:p:/s/COBA-CollegeofBusinessAdministration/Ec0ikSoE4flHgjUK4Xj6r38Bq3AyWyMSL71qCKkCiOIR3Q/)
- **Masters in Marketing (MS-Marketing)**
  - Program Flyer (https://tarleton.sharepoint.com/:p:/s/COBA-CollegeofBusinessAdministration/EesW7Z_6ldFCjY-WV4c_TOYBobe-6Vv4zfM0DzjgGTn2jg/)
  - Webinar (https://youtu.be/G4RQ2zJ_9fY/?si=pceaqpt9K0tIA7cj)
  - Student Guidebook (https://tarleton.sharepoint.com/:w:/s/COBA-CollegeofBusinessAdministration/EUB5C4btK4dAmb8M0jpLThcB4gOAvl6V7YeoWI2aFyQdNw/?e=wsLeE0)
  - Advising Guide (https://tarleton.sharepoint.com/:p:/s/COBA-CollegeofBusinessAdministration/EXg-NM4siUJCgNfK0qsHIo0BGmZtl1PU3TL26KWwJTiYaA/?e=9fSEv6)

Questions?

Send your questions to the COB Graduate Programs Manager (https://www.tarleton.edu/cob/graduate-advising/) at cob.graduate@tarleton.edu

Professors

- Hsu, Dr. Chun-Kai "Tommy"
- Jones, Dr. Dennis
- Schuessler, Dr. Joseph H.
- Schultz, Dr. Leah
- Shao, Dr. Chris

Associate professors

- Kilic, Dr. Ceyhan
- Chavarria, Dr. Juan
- Wu, Dr. Yi-Chia

Assistant professors

- Amin, Dr. MA Sharful
- Chen, Dr. Aray
- Flores, Dr. Javier
- Senn, Dr. Will
- To, Dr. Rita

Instructor

- January, Dr. Scott
- Whitson, Ms. Tara

Business Administration Courses

COBA 5100. Foundations of Management. 2 Credit Hours (Lecture: 1.5 Hour, Lab: 0 Hours).
Framework of the functions and development of management practice. Emphasis on management roles and approaches, applied ethics, and leadership of others in a dynamic, global environment. May be required for admission to Graduate Business Programs. May not be used as credit toward Graduate Business Programs.

COBA 5101. Foundations of Accounting. 2 Credit Hours (Lecture: 1.5 Hour, Lab: 0 Hours).
This course presents the foundational principles of accounting to graduate students without a previous foundation. Students will be introduced to the basics of bookkeeping, the accounting cycle, financial statement generation, and basics of interpretation of financial statements. May be required for admission to Graduate Business Programs. May not be used as credit toward Graduate Business Degrees.

COBA 5102. Foundations of Finance. 2 Credit Hours (Lecture: 1.5 Hour, Lab: 0 Hours).
Introduction to financial concepts with a corporate finance perspective: calculation and interpretation of financial ratios, time value of money (TVM), valuation of corporate bonds. May be required for admission to Graduate Business Programs. May not be used as credit toward Graduate Business Degrees. Prerequisite: Recommendation: Foundations of Accounting or equivalent, and Foundations of Economics or equivalent.

COBA 5103. Foundations of Statistics. 2 Credit Hours (Lecture: 1.5 Hour, Lab: 0 Hours).
Introduction to statistics and probability including: Methods of sampling, classifying, analyzing, and presenting numerical data; frequency distribution, averages, dispersion, times series analysis, correlation, and forecasting for business purposes May be required for admission to Graduate Business Programs. May not be used as credit toward Graduate Business Degrees.

COBA 5104. Foundations of Economics. 2 Credit Hours (Lecture: 1.5 Hour, Lab: 0 Hours).
An integrated survey of both microeconomics and macroeconomics. May be required for admission to Graduate Business Programs. May not be used as credit toward Graduate Business Degrees.

COBA 5105. Foundations of Marketing. 2 Credit Hours (Lecture: 1.5 Hour, Lab: 0 Hours).
This course introduces the principles and concepts of the design, distribution, pricing, and promotion of goods, services, people, places, and causes offered by profit-seeking and non-profit organizations. It also examines both national and international markets and includes an application of the legal and ethical constraints on the marketing field. May be required for admission to Graduate Business Programs. May not be used as credit toward Graduate Business Degrees.

COBA 5301. Foundations of Accounting. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The first component of this course presents the foundational principles of accounting to graduate students without a previous foundation. The second component of this course presents the foundational principles of statistics for graduate students without a previous foundation.

COBA 5302. Foundations of Economics and Finance. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A foundational course in economics and finance for those students without sufficient preparation. The first component will present the basics of economics. The second component will present the basics of finance.

COBA 6101. Foundations of Accounting. 2 Credit Hours (Lecture: 1.5 Hour, Lab: 0 Hours).
This course presents the foundational principles of accounting to graduate students without a previous foundation. Students will be introduced to the basics of bookkeeping, the accounting cycle, financial statement generation, and basics of interpretation of financial statements. May be required for admission to Graduate Business Programs. May not be used as credit toward Graduate Business Degrees.

COBA 6102. Foundations of Finance. 2 Credit Hours (Lecture: 1.5 Hour, Lab: 0 Hours).
Introduction to financial concepts with a corporate finance perspective: calculation and interpretation of financial ratios, time value of money (TVM), valuation of corporate bonds. May be required for admission to Graduate Business Programs. May not be used as credit toward Graduate Business Degrees.

Business Computer Information Systems Courses

BCIS 5086. Problems. 1-3 Credit Hours (Lecture: 0 Hours, Lab: 1-3 Hours).
This course offers students the opportunity to study CIS topics and perform research within the student's area of interest as directed by the responsible professor. May be repeated as topics vary for a maximum of 6 semester hours. Prerequisite: Approval of the department head.

BCIS 5090. Selected Topics in BCIS. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 0 Hours).
An examination of various topics in the Computer Information Systems area with focus on current and recent developments. May be repeated as topics vary. Prerequisite: Approval of department head.

BCIS 5304. Telecommunications for Managers. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Examines the management and utilization of data communication technologies including technical components, configurations, applications, protocols, legal issues, software and management issues, Local Area Network (LAN) technologies, and security issues. Prerequisite: BCIS 5311 or Approval of Department Head.

BCIS 5307. Systems Analysis for Managers. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Investigates and compares various analysis approaches for application automation while highlighting management considerations for planning and developing automated systems. Systems life cycle models and case studies are used. Prerequisite: BCIS 5311 or Approval of Department Head.

BCIS 5311. Managing Information Systems. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Studies the management and use of information and technology as a resource to create competitive businesses, manage global operations, provide useful products and quality services to customers, whether public or private. Examines information systems management, intellectual property, privacy, organizational and societal impact, legal issues, ethics, security issues, decision making, strategic information systems, and management and organizational support systems.

BCIS 5316. Applied Database Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Examines the objectives and methodologies of database management. Topics include data models, database design, data dictionaries, fourth generation programming languages, data integrity, security, and privacy. Students use a commercial database. Prerequisite: BCIS 5311 or Approval of Department Head.

BCIS 5317. Special Topics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of various issues, products, and technology current to computer information systems. May be repeated once for credit as topics vary. Prerequisite: Varies with topic.

BCIS 5318. Quantitative Concepts in Computing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An examination of measurements related to software projects and applying measurement techniques to information technology related problems. Analyses of programs and selected algorithms are performed. A statistical program will be used to analyze data.

BCIS 5319. Decision Support Systems. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Studies the use of decision support systems within organizations to support operational decisions. Explores the various systems used to collect, store, and analyze data, as well as systems to support collaborative decision making. Examines current topics within the field of decision support including: managerial decision models, collaborative decision environments, and knowledge management.

BCIS 5320. Seminar on Computer Based Systems. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Topics will vary according to timeliness and special needs. May be repeated once for credit as topics vary.

BCIS 5349. Topics in Programming. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Develops programming proficiency in a modern programming language. Students complete many programming assignments to achieve necessary knowledge and skills. May be repeated once for credit as topics vary. Prerequisite: Approval of instructor.

BCIS 5351. IT Project Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Studies the genesis of project management and its importance to improving the success of information technology projects. Project management concepts and techniques are emphasized, and students are required to apply these concepts by working on a group project as a project manager or active team member. Prerequisite: BCIS 5311 or Approval of Department Head.

BCIS 5360. Multimedia Application Development. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Theory and application of the multimedia application development process. A review of the principles of user interface, design, graphic design, and interactivity including the appropriate application of these principles to multimedia will be conducted. Students will explore computer-based multimedia development tools and their use in the creation of various types of multimedia applications. The planning, design, production, and evaluation of interactive multimedia projects for delivery through a variety of media will culminate the course of study.

BCIS 5365. Multimedia: Web Development. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Theory and application of the multimedia application development process of the creation of web-based authoring and scripting tools and their use in the creation of various types of web-based projects. The planning, design, projection, and evaluation of interactive web-based projects for delivery through a variety of media will culminate the course of study.

BCIS 5366. Human Computer Interaction. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the principles of human computer interaction including planning, design, and testing of effective application interfaces. Review of current literature in the field and its application to improving the interaction between people and computers.

BCIS 5368. Topics in Multimedia. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of issues, theory, and application of current technology specific to multimedia development.

BCIS 5379. The Technology of E-Business. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the technical and business considerations for creating and operating an electronically based business. Students will study the environment from an operational and legal perspective, analyze the technologies available and implement an e-commerce project integrating database, web pages, and script languages.

BCIS 5380. E-Business Application Development. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines issues related to supporting a business that uses the Internet and other on-line implementations. The course operates in a team environment simulating a business organization and requires the team develop and implement database and Internet technologies.

BCIS 5381. Strategic Information Systems. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines the strategic use of information systems within organizations to leverage their use for competitive advantage. The course explores the job market, develops research and problem-solving skills, and refines presentation skills. Prerequisites: BCIS 5304, BCIS 5307, BCIS 5311, BCIS 5316, BCIS 5351, and BCIS 5392 or Approval of Department Head. NOTE: BCIS 5392 may be taken concurrently.

BCIS 5388. Thesis. 1-6 Credit Hours (Lecture: 1-6 Hours, Lab: 0 Hours).
Scheduled when the student is ready to begin the thesis. No credit until the thesis is accepted. Prerequisite: BCIS 5351, consent of major advisor or approval of department head.

BCIS 5392. Business Intelligence Systems. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Develops research skills related to the reactive and proactive use of data to analyze business decisions. Business environmental and internal data sets will be designed using data warehousing techniques. Students will use datamining, text mining, OLAP, or analytics used to improve decision making. Prerequisites: BCIS 5311 and BCIS 5316 or Approval of Department Head.

BCIS 5395. Research Project with Laboratory. 3 Credit Hours (Lecture: 1 Hour, Lab: 5 Hours).
Independent study course in specific areas of Information Systems. May be repeated for credit once when topics change. Prerequisites: Approval of department head. Lab fee $15.

BCIS 5398. Research Methods in Information Systems. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines timely topics related to computer-based systems. The course develops research skills, problem-solving skills, applies the scientific method, refines presentation skills, and promotes team involvement. The course operates in a distributed team environment using the Internet as its communication vehicle. Prerequisites: BCIS 5304, BCIS 5307, BCIS 5311, BCIS 5316, BCIS 5351, and BCIS 5392 or Approval of Department Head. Students can be concurrently enrolled in BCIS 5392 while taking BCIS 5398.

BCIS 5399. Internship. 3 Credit Hours (Lecture: 1 Hour, Lab: 8 Hours).
Supervised work experience in an information technology-related position with a public or private organization. May be repeated for a total of 6 hours credit. Prerequisite: 6 semester hours of prefix BCIS courses or equivalent and approval of internship coordinator or department head. Field experiences fee $50.

Marketing Courses

MKTG 5086. Problems. 1-3 Credit Hours (Lecture: 0 Hours, Lab: 1-3 Hours).
This course offers students the opportunity to become acquainted with current research being conducted within the student's area of interest; directed reading of a number of sources selected in concert with the student's professor. Prerequisite: Approval of department head.

MKTG 5302. Services Marketing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An understanding of the unique characteristics of services industry, the marketing challenges created by these characteristics, the marketing tools to deal with these challenges, and the strategic issues of utilizing these marketing tools. Prerequisite: COBA 5105 or department head approval.

MKTG 5303. NonProfit & Public Sector Marketing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will examine the role and application of marketing in public and nonprofit settings. The course focuses on a conceptual understanding of the marketing discipline and marketing processes and shows how basic concepts and principles of marketing are applicable to public and nonprofit organizations.

MKTG 5308. Marketing Strategy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Study of the planning and coordination of marketing functions specifically related to product, pricing, promotion, and distribution strategies. Includes case analysis and presentation of results.

MKTG 5312. Sales Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides an understanding of how selling is critical to the success of marketing and business. Course topics include, selling principles & techniques, understanding of the ethical perspective of selling, tasks and roles of the sales manager, the management of sales professionals within an organization, developing effective ways of communications, improving sales knowledge, customers, products, and technology, determining the prospect, planning and executing the sales calls, determining the most effective ways of presentations, handling sales objectives, closing and follow up activities. The emphasis will be on building long-lasting relationships with customers through the systematic analysis and solution of customers' problems. Prerequisite: N/A.

MKTG 5315. Marketing Research. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Provide a fundamental understanding of marketing research methods. Familiarizes students with the accurate, objective, and systematic gathering, recording, and analyzing of data about problems relating to marketing goods and services. Emphasis will be on the interpretation and use of results rather than on the mathematical derivations. The course focuses on helping students recognize the role of systematic information gathering and analysis in making marketing decisions, and develop an appreciation for the potential contributions and limitations of marketing research data. Prerequisite: COBA 5103, COBA 5105 (COB Leveling) or department head approval.

MKTG 5316. Advanced Consumer Behavior. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will blend theories and applications of consumer behavior in marketing. Students are expected to adopt an integrative theoretical approach by incorporating psychological, social, cultural, and ethnic factors in the process of analyzing consumer-related marketing cases and offer viable solutions. This course will offer insights into how consumers decide, evaluate, and repurchase, how they direct their attention and form perceptions, and how they learn and change in a myriad of consumption contexts. The course will also create opportunities for students to analyze marketing cases via lens of consumer-centric theoretical frameworks. The course will guide students to integrate these frameworks in the process of investigating consumer issues and generating well-supported interventions to these issues. Prerequisite: COBA 5105 or department head approval.

MKTG 5320. Digital Marketing and Analytics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides unique and hands-on projects from interactive platforms. Students utilize the concepts of digital marketing and applies them into applicable projects. This course creates opportunities for students to identify the function of analytics by creating, promoting, and positioning an online presence in order for them to operate in digital, marketing, or eCommerce organizations. This course assists students to understand the Digital Marketing terminology, social media marketing, paid search, search engine optimization applying to market segmentation, promotions, and specifically targeting that is frequently utilized in Digital Marketing.

MKTG 5323. Sports Marketing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course introduces an overview of various aspects of sports marketing and the application of basic principles of sports marketing. It examines the world of sports as a business and will focus on attracting the ultimate customer...sports fans...in an increasingly competitive, fragmented and global service. Students will gain a deeper understanding of sports marketing through examination of the sport marketing mix of product, price, place, and promotion. Students will study current opportunities and threats facing sports and entertainment properties and trends that may impact the future of sports and its various audiences.

MKTG 5330. Brand Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course takes a consumer-centric approach to explore such questions with the goal of identifying the ingredients for building and managing inspired brands, where brand is defined as “a reputation” – departing from traditional perspectives of brand. Branding is both an art and a science, thus few branding situations have a definitive, unqualified answer as to the “right” strategy or “best” marketing approach. In this course, students are provided with insights into how profitable brand strategies can be created and the implications for brand management professionals. The class blends marketing theory and practice to provide perspective on corporate marketing and the brand management function.

MKTG 5340. New Product Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Product innovation is one of the most important components in the market orientation. Most of the product/service ideas fail during, before, and after the prototype/process development stage. Although innovativeness is one of the marketing concept elements, it may be hard to reach due to the challenges in the new product procedures. This course focuses on the process whereby innovators solve consumer problems by creating new products or services. Course topics include strategic elements of product development, the new product process, opportunity identification for new products, new product idea development, concept evaluation, and testing, product protocol, designing, development, and evaluation of the final product, product launching.

MKTG 5350. Advertising Strategy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to introduce the promotional strategy portion of the marketing mix. The emphasis will be on the role of advertising in the integrated marketing communications (IMC) of an organization. Attention will be given to various IMC tools used in contemporary advertising campaigns. Examination of the process by which advertising strategies are planned, developed and executed as well as the various factors and considerations that influence this process will be a focus, as well as an understanding of advertising from the broader IMC perspective. Prerequisite: COBA 5105 or department head approval.

MKTG 5354. International Marketing. 3 Credit Hours (Lecture: 4.5 Hours, Lab: 0 Hours).
A global approach to the study of comparative marketing systems, including economic, social, technological, governmental, and political environments as they affect international marketing operations. Graduate students will be required to complete an extensive research project in addition to other course requirements.

MKTG 5389. Global Marketing Practices. 3 Credit Hours (Lecture: 4.5 Hours, Lab: 0 Hours).
A study of basic international business concepts, cultural literacy, and discipline specific content are then applied to practical experiences and activities in the foreign county visited. A study abroad at the student¿s expense is required. Graduate students will be required to complete an extensive research project in addition to other course requirements. Student may complete a maximum of six hours of COBA sponsored study abroad toward degree completion. Prerequisites: Admission into a COBA graduate program and permission of the instructor.

MKTG 5391. Marketing Seminar. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Selected topics of current importance to marketing. May be repeated for credit when topics vary.

College of Education

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The College of Education includes the Department of Curriculum and Instruction, the Department of Educational Leadership and Technology, and the School of Behavioral Sciences, which houses the Department of Psychological Sciences, the Department of Counseling, the Division of Child and Family Studies, and the Division of Sociology. Additionally, the College houses the Department of Educator Preparation Services.

The mission of the College of Education is to provide students in professional education and the behavioral sciences with a quality education through academic, cultural, and leadership experiences, and to provide leadership through scholarship and service to the community and professions. Programs in the College of Education prepare students for challenging, gratifying, and socially significant careers.

In addition to its teaching function, the college has a strong service commitment to public schools, human service agencies, and the surrounding communities.

Departments and Programs

- Department of Curriculum and Instruction (p. 53)
  - MEd in Curriculum and Instruction
- Department of Educational Leadership and Technology (p. 58)
  - MEd in Educational Administration
- School of Behavioral Sciences (p. 67)
  - Department of Counseling (p. 67)
    - MS in Clinical Mental Health Counseling
    - MS in School Mental Health Counseling
    - PhD in Counseling
  - Department of Psychological Sciences (p. 80)
    - MS in Applied Psychology
    - PhD in Experimental Psychology
    - Specialist in School Psychology
  - Division of Child and Family Studies (p. 87)
    - MS in Child Development and Family Studies

* The following graduate degree programs are being phased-out by the University, and no new admissions will be allowed: Master of Science with a major in Counseling Psychology and Master of Arts in Teaching.

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Master of Education Degree in Curriculum and Instruction

The Department of Curriculum and Instruction offers the Master of Education in Curriculum and Instruction (C&I M.Ed.). Concentration areas within the degree develop expertise needed to assume leadership roles in curriculum development, implementation and assessment.

The 30-33 hour traditional C&I M.Ed. program offers concentration areas in Educational Diagnostician, Curriculum and Instructional Generalist, Content Area Specialist, and Certified Reading Specialist.

The C&I M.Ed. program prepares students who aspire to positions such as curriculum coordinator, academic department head, reading specialist, educational diagnostician, technology director, mentor teacher, high school dual enrollment or advanced placement teachers, as well as community college faculty, higher education adjunct faculty, and instructional designers in industry and government.

Application and Admission Procedures

Admission to the College of Graduate Studies: Application for admission should be made to the College of Graduate Studies at least one month prior to the beginning of the semester in which one intends to enroll. The application form may be obtained from www.tarleton.edu/graduate (http://www.tarleton.edu/graduate/) or by calling the College of Graduate Studies at 254-968-9104.

An application fee is required, and applicants must submit official transcripts of previous college work, and an essay addressing professional and career goals. A screening process is required for all certification programs. Advisors for certification programs provide this screening. Refer to the College of Graduate Studies section of the catalog for a more complete description of application and admission procedures.

Admission to the Degree Program in Curriculum and Instruction: After gaining admission to the College of Graduate Studies, new students are contacted by the general advisor in the Department of Curriculum and Instruction for guidance regarding initial advisement. The following advisors are available for consultation:

- Traditional M.Ed.: Dr. Marisa Hellawell, mhellawell@tarleton.edu

Applicants for the C&I M.Ed. must meet grade point requirements of a 2.75 GPA. Applicants develop a 3-faculty member committee (chair and 2 members) who file a degree plan and direct completion of the student's capstone project.

The student's concentration area advisor assumes responsibility for advisement to satisfy specific concentration area requirements and completion of the culminating graduate experience.

Maintaining Good Standing: To remain in good standing, students must maintain a 3.0 GPA on all courses required for the degree. Only courses listed on the degree plan will count in the calculation of grade point average for the purpose of determining "good standing". Failure to meet the standard for good standing will result in actions as described in the section, "Graduate Student Performance" in the College of Graduate Studies portion of the catalog (http://catalog.tarleton.edu/grad/).

Transfer Credits: Transfer credits will be considered only after a student has obtained Full Admission to the degree program. Credits transferred from an approved institution must meet the guidelines outlined in Limitations on Transfer and Correspondence Courses in General Requirements for the Master's Degree (http://catalog.tarleton.edu/grad/).

Time Limitations: Degree requirements must be completed within a six year span of time.

Capstone and Comprehensive Examination

Students admitted to the program after Spring of 2013 develop a Capstone Project and complete a traditional Comprehensive Examination. In both Capstone Project and Comprehensive exam students apply knowledge and concepts acquired throughout their course of study and demonstrate the proficiencies established within the degree.

Thesis Option

Students may elect to pursue the Thesis Option for the C&I M.Ed. The thesis option might be of value to persons considering advanced academic study leading to a doctoral degree. Committee chairs provide specific requirements for the thesis option to interested students.

Master of Education Degree in Curriculum and Instruction Program Requirements

EDUC 5303	Foundations of Curriculum	3
EDUC 5338	Curriculum Design and Implementation	3
EDUC 5398	Techniques of Research	3
Core Capstone Requirement (specific to concentration):		3
EDUC 5085	Education Seminar	
READ 5399	Reading Specialist Practicum	
EDSP 5399	Practicum for Educational Diagnosticians	
EDTC 5370	Intern/Service Learning Capstone	
EDUC 5374	STEM Education Practitioner Inquiry Capstone	
Core Options (select two advisor-approved core options):		6
CHFS 5313	Advanced Human Development	
CHFS 5321	Family Theories and Research	
EDUC 5302	Teaching and Learning in Schools and Communities	
EDUC/EDTC 5307	Adult Learners	
EDUC 5390	Selected Topics in Education	
EDSP 5305	Introduction to Exceptional Learners	
EDSP 5315	Advanced Study of Development Disabilities	
EDTC 5353	Designing Online Learning Environments	
EDTC 5356	Social Media Use in Education	
READ 5377	Digital Literacy	
READ 5379	Cognition and Literacy	
Total Hours		**18**

Child and Family Studies (see footnote 6)

12 hours of approved CHFS 5000-level courses	12
Total Hours	**12**

Content Area Specialist (see footnote 1)

18 hours of approved Graduate coursework in one academic content area	18
Total Hours	**18**

Educational Diagnostician (see footnote 2)

EDSP 5310	Special Education Law	3
EDSP 5311	Behavior Management in Special Education Environments	3
EDSP 5325	Appraisal of Exceptional Learners	3
EDSP 5328	Case Management for Educational Diagnosticians	3
EDSP 5329	Assessing Cognitive Abilities of Exceptional Learners	3
Total Hours		**15**

English as a Second Language (ESL) Specialist (see footnote 8)

EDUC 5340	Teaching English as a Second Language	3
EDUC 5341	Language and Literacy Development in Young Learners	3
EDUC 5342	English as a Second Language Content Area Instruction	3
EDUC 5343	Assessments and Accommodations for English Language Learners	3
Total Hours		**12**

Generalist (see footnote 7)

12 hours approved CHFS, EDUC, EDTC, EDSP, or READ 5000-level coursework	12
Total Hours	**12**

Instructional Design and Technology

EDTC 5338	Principles of Instructional Design	3
or EDTC 5339	Leading Technology Innovation in Education	
EDTC 5349	Educational Media and Technology	3
EDTC 5353	Designing Online Learning Environments	3
EDTC 5354	Facilitating Online Learning Environment	3
EDTC 5356	Social Media Use in Education	3
or EDTC 5339	Leading Technology Innovation in Education	

EDTC 5370	Intern/Service Learning Capstone	3
EDTC 5307	Adult Learners	3
Total Hours		**21**

Reading Specialist (see footnote 3)

READ 5373	Foundations of Reading	3
READ 5374	Reading Resources and Materials	3
READ 5375	Reading Assessment and Intervention	3
READ 5376	Organization and Administration of Reading Programs	3
READ 5380	Critical Literacy	3
Total Hours		**15**

Special Education (see footnote 4)

EDSP 5310	Special Education Law	3
EDSP 5311	Behavior Management in Special Education Environments	3
EDSP 5313	Advanced Study of Learning Disabilities	3
EDSP 5320	Assessing Students with Exceptionalities	3
Total Hours		**12**

Certification-Only Options

Two certification programs available for graduate students who do not wish to complete a Master's degree include the Educational Diagnostician Certificate and Reading Specialist Certificate.

- **Educational Diagnostician Certificate**[1]
  - Designed for educator's who already hold a Master's degree, the Educational Diagnostician Certificate requires a minimum of 3 years of public school teaching experience, completion of 24 hours of graduate coursework, and a passing score on the Texas certification test.

Educational Diagnostician Certification Only - Non-Degree Requirements		
EDSP 5305	Introduction to Exceptional Learners	3
EDSP 5311	Behavior Management in Special Education Environments	3
EDSP 5315	Advanced Study of Development Disabilities	3
EDSP 5329	Assessing Cognitive Abilities of Exceptional Learners	3
EDSP 5325	Appraisal of Exceptional Learners	3
READ 5375	Reading Assessment and Intervention	3
EDSP 5328	Case Management for Educational Diagnosticians	3
EDSP 5399	Practicum for Educational Diagnosticians	3
PSYC 5381	Assessment and Evaluation Fundamentals	3
Total Hours		**27**

[1] Other requirements for Educational Diagnostician Certificate include a Master's degree, successful completion of the state examination, valid classroom teaching certificate and three credible years of teaching experience.

- **Reading Specialist Certificate**

Reading Specialist Certification Only - Non-Degree Requirements [2]		
READ 5373	Foundations of Reading	3
READ 5374	Reading Resources and Materials	3
READ 5375	Reading Assessment and Intervention	3
READ 5376	Organization and Administration of Reading Programs	3
READ 5299	Literacy Practicum II	2
READ 5379	Cognition and Literacy	3
Total Hours		**17**

[2] Other requirements for Reading Specialist Professional Certificate include a Master's degree, successful completion of the state examination, valid classroom teaching certificate, and two credible years of teaching experience.

Education Courses

EDUC 5085. Education Seminar. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 1-3 Hours).
Presentation of project proposal, implementation, and conclusions. Must be repeated a minimum of 3 times for 1 hour credit each semester to complete masters project. Student must be continuously enrolled until the graduate project is completed.

EDUC 5086. Special Problems. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 1-6 Hours).
Open to graduate students who are capable of developing a problem independently. Problems chosen by the student and approved in advance by the instructor. Prerequisite: Graduate major in Education.

EDUC 5088. Thesis. 1-6 Credit Hours (Lecture: 1-6 Hours, Lab: 0 Hours).
Scheduled when the student is ready to begin the thesis. No credit until the thesis is completed. Prerequisites: EDUC 5398, 5357, and consent of major professor.

EDUC 5301. Readings in Professional Development. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An examination of current issues in the professional development of educators. Topics include models of professional development, impact of professional development on public school student achievement, effective evaluation of professional development, and identification of best practice in writing and evaluating research with an emphasis on literature reviews.

EDUC 5302. Teaching and Learning in Schools and Communities. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An examination of the many aspects of community life that influence classrooms and school services. Discussion includes language and communication styles, economic conditions, belief and value systems, age groups, and a range of learner abilities.

EDUC 5303. Foundations of Curriculum. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the philosophical, historical, psychological and social foundations of curriculum. Analysis and interpretation of theoretical research is required. Students must complete this course within the first twelve semester hours of graduate study. TMATE students will enroll in this course immediately following completion of certification requirements.

EDUC 5304. Human Development. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Increasing the understanding of human behavior with emphasis on the child, adolescent, and adult learner. An examination of the social and cultural forces in the formation of personality, the self, and roles in group membership.

EDUC 5307. Adult Learners. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the theory and research pertaining to adult learners. Topics for study include the characteristics of adult learners, human performance improvement, instructional and assessment strategies that are effective with adults, technology applications for instructional delivery, and program assessment. Students may not count both EDUC 5307 and EDTC 5307 for credit toward a degree.

EDUC 5310. Foundations of Elementary and Middle School Curriculum. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the elementary and middle school curricula, including English language arts and reading; mathematics; life, earth and physical science; social sciences; fine arts; health and physical education. Additional topics include the state adopted curriculum, local school instructional programs and national/state assessment programs. Field experience is required. Prerequisite: admission to the College of Graduate Studies; pending admission to the alternative teacher certification program at Tarleton.

EDUC 5311. Methods of Effective Teaching. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the research on effective teaching practices with an emphasis on direct instruction. Additional topics of study include mastery learning, assessment of learning and use of assessment to guide instruction. Students will apply technology and effective teaching practices to the design and delivery of instruction. Prerequisite: admission to the alternative teacher certification program at Tarleton.

EDUC 5312. Seminar in Teaching Language Arts and Social Studies. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An integrated approach to teaching Social Studies through the application of the writing process, reading/writing connections, and children's literature. Prerequisite: 18 hours of professional education course work.

EDUC 5313. Equitable Teaching for All Learners. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Analysis and application of instructional practices that improve achievement for all learners. An exploration of student differences and learner-centered characteristics. Students will investigate the theoretical and practical implications that promote academic and social growth in exceptional learners, including processes and procedures relating to the identification and placement of special education, gifted and talented, and English-language Learners. Prerequisite: Admitted to College of Graduate Studies Admitted to TMATE Program.

EDUC 5314. Creating and Managing the Learning Environment. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the research on creating and maintaining a positive learning environment. Additional topics for study include: cultural dimensions of classroom management; motivating student achievement; fostering cooperation among students; and reinforcing appropriate behavior. Prerequisite: admission to the alternative teacher certification program at Tarleton.

EDUC 5315. Content Methodology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to examine specific content methodology derived from research-based instructional practice using the Texas Educator Standards. All TMATE certification content areas will be available in this online course. Prerequisites: EDUC 5311 and EDUC 5314.

EDUC 5320. Issues in the Education of Children. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The examination of issues related to the education of young children. Course content includes: applying stage development and learning theories to develop instructional strategies and classroom management practices; cultural and individual differences; teaching English language learners and learners with special needs. Prerequisite: admission to the alternative teacher certification program at Tarleton.

EDUC 5321. Issues in the Education of Adolescents. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The examination of issues related to the education of adolescents. Course content includes: applying stage development and learning theories to develop instructional strategies and classroom management practices; cultural and individual differences; the adolescent subculture and factors that place adolescents at risk; teaching English language learners and learners with special needs. Prerequisite: admission to the alternative teacher certification program at Tarleton.

EDUC 5322. Teaching Math and Science in the Elementary School. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An advanced study of methods and materials for the teaching of math and science. Emphasis will be on helping teachers become more effective in teaching math and science by developing questions, investigations, speculations, and explorations that reflect not only the content of each area of study, but the process involved in learning.

EDUC 5334. Curriculum for Early Childhood Programs. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An advanced study will be made of early childhood education curriculum and practices. An examination will be made of current trends in early childhood curriculum with an emphasis on the modifications needed to ensure the success of all young children. Prerequisite: 18 hours of professional educational course work.

EDUC 5338. Curriculum Design and Implementation. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The curriculum selection, design, implementation, and evaluation processes within the classroom and school district settings are examined. Factors that influence the curriculum decision-making process and a review of theories of curriculum development will be researched. Curriculum alignment and curriculum auditing will be major emphases of this course.

EDUC 5340. Teaching English as a Second Language. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An examination of theory, research, and practice as it relates to English language learners. This course will provide an overview of the various methods and philosophies of English language instruction. The course will focus on the best practices for developing listening, speaking, reading, and writing skills with English language learners.

EDUC 5341. Language and Literacy Development in Young Learners. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An examination of the interrelatedness between language acquisition and literacy development. This course will review the multiple perspectives on developing English language literacy with English language learners that come from bilingual and multilingual homes. The course will focus on best practices for assessing and developing literacy in English Language Learners.

EDUC 5342. English as a Second Language Content Area Instruction. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An examination of best practices for integrating English language instruction with content-based ESL instruction in science, mathematics and social sciences for non-English speaking students. This course will focus on content specific strategies and sheltered English instruction.

EDUC 5343. Assessments and Accommodations for English Language Learners. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An examination of assessments to determine English Language Learners' linguistic levels, language proficiency, and growth content area learning.

EDUC 5345. Advanced Instructional Strategies. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The derivation of appropriate methods and techniques from basic principles of learning. The development of working skills needed in cooperative planning, selecting, and organizing teaching materials, utilization of the environment, individual and group guidance, and evaluation activities.

EDUC 5350. Assessment Issues for Educational Leaders. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The examination of assessment as a process with emphasis on assessment of student achievement and on data interpretation for the purpose of improving instruction.

EDUC 5355. Effective Instructional Programming. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An examination of research-based best instructional and curricular practices and the evaluation and enhancement of instructional and curricular programs related to identified best practices.

EDUC 5360. The Gifted Learner. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An in-depth study of the characteristics and needs of gifted and talented students as they relate to both school and family settings. Different models and programs for gifted education will be studied. Formal and informal identification procedures will be examined in line with federal and state guidelines.

EDUC 5362. Creativity in the Classroom. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the theories and models of creativity. Emphasis will be given to identifying the creative potential of students in all classrooms. Instructional processes which accommodate the needs of creative learners will be examined and developed. Prerequisite: EDUC 5360.

EDUC 5364. Curriculum and Materials Development for the Gifted Learner. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A comparison of regular and gifted curricula with a focus on developing an interdisciplinary curriculum for gifted learners. Students will examine and evaluate existing materials and equipment which support instruction for the gifted in both regular and special programs. One focus will be on developing and evaluating teacher constructed materials. Prerequisite: EDUC 5360.

EDUC 5366. Instructional and Evaluation Methods for the Gifted Learner. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Methods of determining specific learning styles and talents will be learned, with emphasis placed on implementing appropriate instruction for programs. Methods and tools of informal and formal evaluation and assessment will be examined. Prerequisites: EDUC 5360 and 5364.

EDUC 5369. Practicum in Gifted Education. 3 Credit Hours (Lecture: 1 Hour, Lab: 7 Hours).
Supervises professional activities in gifted and talented programs. Students will be required to demonstrate competence in the process of delivering a synergistic gifted and talented program. Prerequisites: Successful completion of EDUC 5360, 5362, 5364, and 5366.

EDUC 5370. Foundations of STEM Education. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will explore the history of STEM education and the concepts and application of STEM in society; examine, analyze, and apply the role that STEM disciplinary language plays in STEM instruction; examine factors influencing STEM comprehension; examine sociocultural and cognitive factors influencing STEM education across EC-12 levels; application of STEM principles to instructional settings. Prerequisites: Admitted into the Curriculum & Instruction graduate program, STEM emphasis certificate program, or previously obtained a graduate degree.

EDUC 5371. Problem-Based Research in STEM Education. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will introduce scientific research associated with STEM education; examine problems associated with STEM implementation in EC-12 curriculum and instruction settings; evaluate and create effective solutions for STEM curricular and implementation problems in school-based settings. Prerequisites: Admitted into the Curriculum & Instruction graduate program, STEM emphasis certificate program, or previously obtained a graduate degree.

EDUC 5372. Integrative STEM Pedagogy & Instructional Design for the Classroom. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is grounded in research and new theories regarding educational practices and outcomes in STEM education; examine integrated and multidisciplinary practice-based pedagogies; building of interdisciplinary STEM connections among content areas; development, implementation, and evaluation of integrative STEM project-based learning. Prerequisites: Admitted into the Curriculum & Instruction graduate program, STEM emphasis certificate program, or previously obtained a graduate degree.

EDUC 5373. Design Thinking for STEM Teaching & Learning. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will explore integrated approaches for teaching science and mathematics concepts using design thinking principles and technology in EC-12 education; students will deliver contextualized and integrated STEM instruction that promotes students engagement, motivation, and interest using the design thinking process. Prerequisites: Admitted into the Curriculum & Instruction graduate program, STEM emphasis certificate program, or previously obtained a graduate degree.

EDUC 5374. STEM Education Practitioner Inquiry Capstone. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Knowledge and skills acquired in STEM education courses will be used to identify and research solutions to a practical, real-world obstacle in STEM education curriculum or implementation. Students will review scholarly literature, problem-solve using best practices in STEM education, implement their solution, evaluate the results, and formally report the outcome. Prerequisite: EDUC 5370, EDUC 5371, EDUC 5372, or concurrent enrollment.

EDUC 5390. Selected Topics in Education. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An examination of different topics each semester with a focus on such subjects as the gifted student, the education of culturally disadvantaged, teacher evaluation, or other selected topics concerning the teaching/learning process. This semester may be repeated for credit as topic changes. Prerequisite: Permission of instructor.

EDUC 5398. Techniques of Research. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Fundamental concepts and tools of research applied to psychological and educational problems. Rationale of research, analysis of problems, library skills, sampling, appraisal instruments, statistical description and inference, writing the research report, and representative research designs.

EDUC 5399. Internship in Teaching. 3 Credit Hours (Lecture: 1 Hour, Lab: 7 Hours).
Supervised field-based experience in classroom teaching. Interns must demonstrate proficiency in applying effective teaching practices and classroom management strategies in a school classroom. Prerequisite: Admission to a teacher certification program at Tarleton; satisfactory performance in the professional development courses preceding the internship. May be repeated for credit.

EDUC 5695. Practicum in Clinical Teaching. 6 Credit Hours (Lecture: 1 Hour, Lab: 18 Hours).
Supervised practicum in clinical teaching in the public schools at the appropriate level. Students are required to demonstrate proficiency in the application of effective instructional practices and classroom management strategies. Prerequisite: Admission to the TMATE Practicum in Clinical Teaching.

Special Education Courses

EDSP 5086. Special Education Problems. 1-3 Credit Hours (Lecture: 0 Hours, Lab: 1-3 Hours).
Open to graduate students who are capable of developing a problem independently. Problems are chosen by the student and approved in advance by the instructor and department head. Prerequisites: Full admission to the College of Graduate Studies and a graduate degree or certification program.

EDSP 5305. Introduction to Exceptional Learners. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A survey of learner characteristics and an examination of instructional techniques that promote academic, personal, and social growth in exceptional learners and an examination of the process and procedures relating to the placement of exceptional learners. Prerequisite: 18 hours of professional education or certification.

EDSP 5310. Special Education Law. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to interpret and apply current special education policy and law to practice, and develop the skills to be professional and ethical educational leaders and advocates for students with disabilities. In addition, an exposure to how issues of diversity have shaped federal statutes and regulations concerning assessment and evaluation procedures, due process and mediation, discipline, individual education plans (IEPs), free appropriate education (FAPE), and least restrictive environment (LRE).

EDSP 5311. Behavior Management in Special Education Environments. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Characteristics of students with emotional disabilities, including the application of behavioral management strategies appropriate for students with emotional and behavioral disabilities. Course content includes: functional assessment of behavior; development of behavior intervention plans; strategies for teaching appropriate behavior; crisis management strategies; integrating behavior management with instructional programs in school, community and home settings. Prerequisite: admission to the alternative teacher certification program at Tarleton.

EDSP 5313. Advanced Study of Learning Disabilities. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of research-based instructional methods appropriate for students with high incidence disabilities, including causation, diagnosis and educational programming. Course content includes methods for teaching students with learning disabilities, mild intellectual disabilities, speech and language impairments, behavior disorders and other high incidence disabilities. Emphasis placed on adaptation, accommodation, and modification strategies as well as collaboration with parents, paraprofessionals, general education teachers, and other educational professionals.

EDSP 5315. Advanced Study of Development Disabilities. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of research-based instructional methods appropriate for students with learning and developmental disabilities, including causation, diagnosis and educational programming. Course content includes methods for teaching students with learning and developmental disabilities; adapting general education classrooms to support the participation of students with learning and developmental disabilities; collaboration with parents, paraprofessionals, and general education teachers. Prerequisite: EDSP 5305 or approval of department head.

EDSP 5320. Assessing Students with Exceptionalities. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides knowledge and skills related to various forms of assessment which are designed to identify and support students with exceptional learning and behavioral needs. Students will become familiar with general concepts related to tests and measurement, and gain experience using various forms of formal and informal assessment. Assessment data will be analyzed and used to help formulate various elements of student instructional plans/interventions. Prerequisite: EDSP 5305.

EDSP 5325. Appraisal of Exceptional Learners. 3 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
Standardized assessment of the academic achievement of students referred for or currently receiving special education services including test administration, analysis, and reporting of scores, and program planning. Prerequisite: Admission into Educational Diagnostician program; EDSP 5305 or concurrent enrollment; or approval of department head. Lab fee: $30.

EDSP 5327. Teaching Students with Severe to Profound Disabilities. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Definitions, characteristics, and instructional techniques for students with severe and profound disabilities, including functional assessment, applied behavioral analysis, Individualized Education Program (IEP) goals and objectives, transition and placement issues. Prerequisite: EDSP 5305 or approval of department head.

EDSP 5328. Case Management for Educational Diagnosticians. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course addresses state and federal laws that affect the diagnosis, placements, and programs for students with disabilities and the diagnostician's role and responsibilities as compliance officers. Enrollment limited to students admitted to the Diagnostician Certification Program or permission of department head. Prerequisites: Admission to the Educational Diagnostician Certification Program, EDSP 5305, EDSP 5325 and EDSP 5329.

EDSP 5329. Assessing Cognitive Abilities of Exceptional Learners. 3 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
Standardized assessment of the cognitive and adaptive behavior abilities of exceptional students. Includes test administration, scoring, analysis, and program planning. Prerequisites: Acceptance into Educational Diagnostician program, EDSP 5305, and EDSP 5325. Lab fee: $2.

EDSP 5397. Internship in Special Education Teaching. 3 Credit Hours (Lecture: 1 Hour, Lab: 7 Hours).
A supervised, field-based experience in a special education classroom. Interns must demonstrate proficiency in applying effective teaching practices and classroom management strategies in a school classroom. May be repeated for credit. Prerequisite: Admission to a teacher certification program at Tarleton; satisfactory performance in the professional development courses preceding the internship.

EDSP 5399. Practicum for Educational Diagnosticians. 3 Credit Hours (Lecture: 1 Hour, Lab: 7 Hours).
Supervised professional activities for students preparing for certification as an educational diagnostician. Professional activities will include test administration, scoring, analysis, diagnosis, report writing, and program planning. Students will be required to demonstrate competence in the performance of professional duties as an educational diagnostician. This project addresses a practical, real world challenge using the skills and knowledge students have gained throughout their program of study. The completed project will demonstrate critical thinking, research-based best practices, review of scholarly literature, and formal reporting consistent with APA style. A minimum of 300 hours of documented related professional activities will be required. Prerequisites: EDSP 5305, 5325, and 5329 or approval of department head.

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Master of Education Degree in Educational Administration

The Department of Educational Leadership and Technology offers the Master of Education degree in Educational Administration. This degree is designed to help students improve their competencies in the field by developing new skills and in-depth knowledge, which are requisites for assuming roles of increased responsibility and leadership.

General Procedures

Graduate faculty are designated as advisors to assist students with developing a course of study in accordance with each students' area of concentration. Faculty advisors work with students throughout their program to help them prepare for meeting program requirements, such as a comprehensive exam and practicum.

To receive full admission to any degree program offered in the Department of Educational Leadership and Technology, an applicant must meet all standards established by the College of Graduate Studies and all departmental program requirements.

To remain in good standing, students who have full admission status are expected to maintain a 3.0 GPA. Students whose GPA does not meet the minimum may not enroll for additional work without special permission from the department head.

Consideration for accepting transfer credits will be given only after a student has full admission to graduate study. Credits transferred from an approved institution must meet the guidelines outlined in Limitations on Transfer and Correspondence Courses in General Requirements for the Master's Degree.

Comprehensive Examination

The following comprehensive examination procedures apply to the concentrations offered in the Department of Educational Leadership and Technology. There are four concentrations, of which students select one: EC-12 Leadership, Principal Certification, Higher Education Leadership, or Educational Technology Leadership.

Administration and Application Dates

Examinations will be administered according to guidelines established by the requirements of each concentration area. Examinees must have filed a degree plan and completed course requirements to be eligible to take the comprehensive examination.

Examination Schedule

Examination schedules vary by area of concentration. A faculty advisor notifies students of examination opportunities and may include days, times, locations, and requirements as they progress toward earning the master's degree in educational administration.

Procedures

Students are provided information specific to the comprehensive examination in their concentration area. Information also included guidelines for completing and submitting the examination.

Students are expected to have a passing score in order to be eligible for graduation. Passing scores are established according to concentration criteria and explained to students during their program of study.

Educational Administration Degree and Certification Requirements

The Educational Administration programs at Tarleton State University are designed to prepare effective educational leaders. Students may pursue a concentration in EC-12 Leadership, Principal Certification, Higher Education Leadership, Educational Technology Leadership, Post-Master's Alternative Principal Certification, or Post-Master's Alternative Superintendent Certification. Semester credit hour requirements are as follows: EC-12 Leadership, Principal Certification (33 semester hours); Higher Education Leadership (30 semester hours); Educational Technology Leadership (30 semester hours); Post-Master's Alternative Principal Certification (24 semester hours); Post-Master's Alternative Superintendent Certificate (15 semester hours).

Tarleton's Master of Education degree in Educational Administration and the accompanying certification programs are designed to prepare administrators for a variety of roles and responsibilities. The Principal's Certificate qualifies one to hold campus-level administrative positions. The Superintendent's Certificate qualifies one to become a district superintendent. Higher Education Leadership and Educational Technology Leadership graduates are prepared to hold a variety of leadership positions in higher education and EC-12. The programs are designed to support the continuing professional development of career-oriented individuals and to help them be knowledgeable decision-makers, capable of providing leadership to districts, campuses, other educational organizations, and communities.

Typical Curriculum for M.Ed. in Educational Administration

Following is the typical curriculum for the Master of Education (M.Ed.) Degree in Educational Administration. A student who wishes to complete this degree and qualify for the principal's certificate should ask his/her academic advisor for information about additional requirements for the principal's certificate. Students specializing in higher education will complete 12 hours of the leadership core, and 18 hours of higher education courses for a total of 30 semester credit hours.

EDAD 5301	Research in Educational Leadership	3
EDAD 5355	Leadership of Diverse Learning Communities	3
Total Hours		**6**

Educational Technology Leadership

EDTC 5307	Adult Learners	3
EDTC 5338	Principles of Instructional Design	3
EDTC 5339	Leading Technology Innovation in Education	3
EDTC 5349	Educational Media and Technology	3
EDTC 5353	Designing Online Learning Environments	3
EDTC 5354	Facilitating Online Learning Environment	3
EDTC 5356	Social Media Use in Education	3

EDTC 5370	Intern/Service Learning Capstone	3
Total Hours		**24**

Higher Education

ELHE 5300	Higher Education History	3
ELHE 5301	Higher Education Student Services	3
ELHE 5302	Higher Education Finance	3
ELHE 5303	The Comprehensive Community College	3
ELHE 5304	Higher Education Leadership	3
ELHE 5305	Higher Education Politics and Policy	3
EDTC 5339	Leading Technology Innovation in Education	3
ELHE 5399	Practicum in Higher Education Leadership	3
Total Hours		**24**

Principal Certification*

EDAD 5300	Foundations in Educational Leadership	3
EDAD 5307	Leadership of Programs and Procedures in Supervision	3
EDAD 5309	Legal Issues in School Leadership	3
EDAD 5316	Instructional Leadership	3
EDAD 5339	Processes of Educational Leadership	3
EDAD 5342	Leaderships of Campus Resources	3
EDAD 5345	Leadership of Curriculum Systems	3
EDAD 5398	Principal Practicum I	3
EDAD 5399	Principal Practicum II	3
Total Hours		**27**

Admission to Educational Leadership Programs

Admission procedures for the Master of Education Degree in Educational Administration include the following steps:

1. Admission to the College of Graduate Studies:
   Students must complete all requirements for admission to the College of Graduate Studies listed in the current University catalog.
2. Admission to the MEd in Educational Administration program or Post-Master's Alternative Principal Certification:
   Students will submit a program application prior to receiving advising or registering for coursework that will include all teacher service records, a recommendation from the campus principal, and copies of teaching certificates. Completed program applications are reviewed upon submission. Students can begin certification courses after formal admission by the Educator Preparation Council.
3. *Recommendation for Certification*:
   Recommendation for certification by Tarleton State University will be forwarded to the State Board for Educator Certification only after the student has successfully completed the designated course of study, two years of creditable teaching experience as a classroom teacher (see TAC § 241.25), and has earned a passing score on the Texas State Principal Certification Examinations, and has submitted a Request for Certification Recommendation form. Students will be allowed to register for the certification examination when program requirements have been met and a department representative has approved testing. Students who fail to register and take the principal certification examination within 24 months of completing the requirements listed in this paragraph must request permission from the department head before registering for the certification examination. The department head may require additional study to ensure that the student is current in the knowledge and skills in the learner-centered proficiencies. The additional study may include, but is not limited to, additional coursework.
4. Students who fail to complete the certification examination satisfactorily must obtain permission from the department head before registering for a subsequent attempt. The department head may require additional study to ensure that the student is current in the knowledge and skills in the learner-centered proficiencies. The additional study may include, but is not limited to, additional coursework.
   Students should regularly meet with advisors and the Educator Preparation Services Office to receive updates and changes to the certification process.

Post-Master's Alternative Principal's Certificate

A master's degree is a prerequisite for this certificate. Students seeking post-master's alternative principal certification must take 18 semester hours of prescribed coursework and 6 semester hours of designated EDAD coursework in the practicum. Practicum 1 and Practicum 2 are required for the certificate.

Required EDAD Courses		
EDAD 5300	Foundations in Educational Leadership	3
EDAD 5309	Legal Issues in School Leadership	3
EDAD 5316	Instructional Leadership	3
EDAD 5339	Processes of Educational Leadership	3
EDAD 5399	Principal Practicum II (due to the nature of the new exam the practicum is being moved to a two-semester course)	6
EDAD 5398	Principal Practicum I	3
EDAD 5307	Leadership of Programs and Procedures in Supervision	3
EDAD 5342	Leaderships of Campus Resources	3
EDAD 5345	Leadership of Curriculum Systems	3
Total Hours		**30**

Admission to the Principal Practicum as Post-Master's Alternative Certification

Students pursuing the Principal's Certificate normally complete their master's degree requirements before completing the practicum.

1. The student must enroll each semester until the practicum is satisfactorily completed.
2. Application for admission to the principal practicum must be submitted to the Coordinator of M.Ed./Principal Certification Programs no later than June 15 preceding the fall of enrollment for the internship and October 15 preceding the spring internship. (See Forms for Application)
3. Students must complete the educational administration core or be enrolled in the last of five core courses prior to enrolling in the internship.

The principal practicum courses typically are a one-semester course each; however, the courses may be repeated so that the student can satisfactorily complete practicum requirements. No more than 6 semester hours of practicum coursework can be used to satisfy certification plan requirements.

Admission to the Superintendent's Alternative Certificate Program

For admission to the Superintendent's Alternative Certificate Program, students must have earned the principal certificate;

1. have been admitted to the College of Graduate Studies according to the requirements of the current University catalog
2. submit copies of official teacher and administration certificates
3. formally apply for admission to the Superintendent's Certificate Program with the Coordinator of the Superintendent Certification Program

Admission to the program does not guarantee recommendation for certification. To be recommended for certification, students must meet all program requirements and satisfy the requirements for certification recommendation.

EDAD 6380	Superintendent Leadership and Communication	3
EDAD 6381	Superintendent Leadership and Human Resources	3
EDAD 6382	Superintendent Leadership and Resource Allocation	3
EDAD 6383	Superintendent Leadership and Accountability	3
EDAD 6384	Superintendent Leadership Practicum	3
Total Hours		**15**

Doctor of Education in Educational Leadership

Designed to prepare high-quality scholar-practitioners for public school and higher education leadership, the Doctor of Education (Ed.D.) in educational leadership offers a rich theoretical knowledge base as the foundation for the development of visionary leaders for EC-12 and higher education environments. The Ed.D. consists of 54 semester hours of coursework and a 9 semester hour dissertation requirement combining an individualized program of study with specialized coursework and research. Including the dissertation, the program is designed for students to complete the Ed.D. in three years or less.

The program operates as a cohort model. Students are admitted annually and then matriculate through the doctoral coursework as a class, beginning in the summer semester. At the beginning of the program, the course work is similar for all students in the cohort, but as students progress through the program, their program of study becomes more individualized and focuses on a specific area of study.

Admission

The admission process is a three-stage process. Stage 1 is the screening process, which includes the submission of all appropriate documents by the advertised deadline. The required documentation includes:

- Application to the College of Graduate Studies.
- Applicants must provide official transcripts for all higher education coursework, including the transcript for their Master's Degree from an accredited institution. You must have completed a minimum of 18 hours of coursework in administration, management, or leadership or have equivalent experience.
- You must provide three reference forms using either the printable PDF or electronic reference. All references must be from individuals outside of the Department of Educational Leadership and Technology. At least two of the letters must be written by individuals who hold doctoral degrees.
- As a single PDF file, email your cover letter and resume/curriculum vitae to grad-docs@tarleton.edu. Your cover letter should be no more than 1 page in length and should include information, such as:
  - Goals for being in and completing the doctoral program.
  - Professional experience, including leadership experience.
  - Details of current work position
  - Any personal details you would like to share.

Stage 2 is the evaluation stage, which consists of a review of all information submitted in the screening process, a review of a writing sample, and personal interviews. Information about how and when to complete a writing sample will be provided as the admission process continues.

Stage 3 is the selection stage of the admission process. During stage 3, the admissions committee determines which applicants are appropriate for admission to the doctoral program. Admissions are considered three times yearly;

1. an early admission period in November (deadline: November 1),
2. the priority admission period in February (deadline: February 1), and
3. the regular admission period in March (deadline: March 1).

Course Work

The doctoral program curriculum consists of 63 semester hours in educational leadership foundations, research tools such as inquiry, a concentration area in EC-12 Leadership, Educational Technology Leadership, Higher Education Finance, or Higher Education Leadership, and a dissertation. Students may choose to pursue principal or superintendent certification as part of the EC-12 Leadership concentration. Thirty-nine semester hours consist of foundation and inquiry courses; fifteen semester hours consist of an area of concentration; and nine semester hours consist of dissertation work. Students pursuing certification as their area of concentration must be admitted to those programs separate from admission to the Ed.D. in Educational Leadership.

Students should work closely with their advisors so that an appropriate workload is established. Up to 15 semester credit hours of coursework from subsequent graduate coursework not applied to a graduate degree could potentially be applied to the doctoral degree pending advisor approval. Coursework taken more than 10 years previous to the date of graduation will not apply toward the degree.

Foundation Courses [1]		**24**
EDAD 6310	Scholar-Practitioner Leader	
EDAD 6324	Models and Theories of Educational Leadership	
EDAD 6323	Organizational Theory and Change in Education	
EDAD 6330	Educational Policy and Governance	
EDAD 6320	State and Federal Administrative Law	
EDAD 6317	Educational Equity and Identity	
EDAD 6314	Philosophy and Ethics in Educational Leadership	

EDTC 6359	Leading Technology Innovation in Education	
Inquiry Courses [2]		**15**
EDAD 6311	Scholarly Process in Educational Leadership	
EDAD 6312	Research Design and Critical Analysis	
EDAD 6316	Investigating Problems of Practice in Educational Leadership	
EDAD 6325	Data Analysis	
EDAD 6331	Advanced Data Analysis	
Dissertation		**9**
EDAD 6088	Dissertation	
EDAD 6088	Dissertation	
EDAD 6088	Dissertation	
Total Hours		**48**

EC-12 Education Leadership - *Includes Superintendent and Post-Master Principal Certification Options

EDAD 6351	Accountability in Education	3
or EDAD 6380	Superintendent Leadership and Communication	
or EDAD 5300	Foundations in Educational Leadership	
EDAD 6353	Constituent Relations In Education	3
or EDAD 6381	Superintendent Leadership and Human Resources	
or EDAD 5309	Legal Issues in School Leadership	
EDAD 6352	Human Resource Administration for Educational Leaders	3
or EDAD 6382	Superintendent Leadership and Resource Allocation	
or EDAD 5316	Instructional Leadership	
EDAD 6354	Finance for School Leaders	3
or EDAD 6383	Superintendent Leadership and Accountability	
or EDAD 5339	Processes of Educational Leadership	
or EDAD 5342	Leaderships of Campus Resources	
EDTC 6360	Facilitating Instructional Innovation in Education	3
or EDAD 6384	Superintendent Leadership Practicum	
or EDAD 5345	Leadership of Curriculum Systems	
or EDAD 5355	Leadership of Diverse Learning Communities	
Total Hours		**15**

Educational Finance

EDAD 6342	Fin and Resource Management in Higher Education	3
EDAD 6354	Finance for School Leaders	3
FINC 6307	Financial Management	3
ACCT 6307	Governmental and Not-for-Profit Accounting	3
COBA 6101	Foundations of Accounting	2
COBA 6102	Foundations of Finance	2
Total Hours		**15**

Educational Technology Leadership

EDTC 6360	Facilitating Instructional Innovation in Education	3
EDTC 6361	Visionary Planning to Transform Learning with Technology	3
EDTC 6362	Implementing Technology Strategy and Systems	3
EDTC 6363	Promoting Continuous Professional Learning	3
EDTC 6364	Empowering Technology Innovation and Change	3
Total Hours		**15**

Higher Education Leadership

EDAD 6340	Foundations of Higher Education	3
EDAD 6347	Trends and Issues in Higher Education	3
EDTC 6360	Facilitating Instructional Innovation in Education	3
EDAD 6342	Fin and Resource Management in Higher Education	3
EDAD 6343	Teaching and Assessment in Higher Education	3
Total Hours		**15**

Concentration

In the concentration area, students will work with their doctoral advisor to establish a program supportive of professional goals and doctoral objectives.

Progress Checkpoint

As students near the end of their first year of study, they must submit documentation of progress toward becoming a scholar-practitioner and advancing a dissertation topic. Course work and information sessions during the first year of study provide guidelines in order for students to complete requirements needed to continue in the program.

Dissertation

The dissertation consists of nine semester credits and is embedded in the course sequencing to be taken in three separate semesters. In the event students do not complete the dissertation within three semesters, they may continue in the program. However, students must be continually enrolled in dissertation credits each semester. Students must also make satisfactory progress toward completing their degree. A student may be removed from the program for non-continuous enrollment and/or not making satisfactory progress on their dissertation.

Continuous Enrollment

Students are required to maintain continuous enrollment toward the doctoral degree for the duration of their program. This consists of enrolling in courses and/or dissertation work each semester, Fall, Spring, and Summer. Students who take a break from progress must submit a Leave-of-Absence request with their advisor and have approval from the head of the department.

Transfer Course Work

With the approval and written request from the doctoral advisor, and at the discretion of the Dean of the College of Graduate Studies, students may transfer up to 15 semester credit hours toward the doctoral degree from another regionally-accredited university. Transfer course work may not be used to satisfy the educational leadership core requirements and must have been completed within the 10 years prior to the student's graduation date. Because of limitations on transfer for advanced standing, advisors should be consulted prior to making the request.

Courses

EDAD 5086. Special Problems. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 0 Hours).
Open to graduate students who are capable of developing a problem independently. Problems are chosen by the student and approved in advance by the instructor.

EDAD 5088. Thesis. 1-6 Credit Hours (Lecture: 1-6 Hours, Lab: 0 Hours).
Scheduled when the student is ready to begin the thesis. No credit until the thesis is completed. Prerequisites: completion of all other coursework required for the degree and consent of the major professor or approval of the department head.

EDAD 5300. Foundations in Educational Leadership. 3 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).
The purpose of EDAD 5300 Foundations of Educational Leadership is to introduce students to: campus-based educational administration and the context in which it currently operates; an initial description of the scope of the process of educational administration; and a review of the fundamental theories related to management, administration, and leadership. Other concepts to be explored in the course include: creating a shared mission and vision, exploring the Texas Principal Standards, identifying frameworks of educational organizations, examining educational policies at the local, state, and national levels, and developing a context for ethical leadership. Prerequisites: Admission to the Educational Administration program and the principal certification program.

EDAD 5301. Research in Educational Leadership. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of the fundamentals of research emphasizes research terminology, principal research designs, data collection methodology, psychometric qualities of measurement, research ethics, program evaluation, and distinguishing features of quantitative and qualitative research paradigms. The course focuses on the development and use of the research and evaluation skills necessary to become critical consumers and producers of research.

EDAD 5307. Leadership of Programs and Procedures in Supervision. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of programs and procedures in supervision emphasizes the application of appropriate supervisory practices in hiring, selection, and retention of teachers, as well as, the development and appraisal of teachers. Educational leaders develop an understanding of clinical and developmental supervision, teacher evaluation/appraisal, observation and feedback, and the evolving concepts of supervisory practice. Prerequisites: Admission to the principal certification program; Completion of EDAD 5300, 5316, and 5309 or approval of department head.

EDAD 5309. Legal Issues in School Leadership. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of legal issues emphasizes the relevant legal principles that affect the operation, organization, and administration of public schools. This course focuses on the ethical application of constitutional, statutory, administrative, and case law. Prerequisites: Completion of EDAD 5300 and EDAD 5316 or approval of the department head.

EDAD 5310. Special Education Law. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Legal framework for special education in the United States; consideration of federal constitutional provisions, federal and state statutes, federal and state judicial decisions and rules and regulations for the various federal and state agencies which affect special education.

EDAD 5316. Instructional Leadership. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
EDAD 5316: Instructional Leadership The purpose of EDAD 5316 Instructional Leadership is to help aspiring school administrators develop an understanding of the instructional leadership, coaching, and team building skills necessary to become effective campus principals. The course will require students to develop knowledge and skills of facilitating high-quality instructional practices, creating a school mission, vision, and culture to support teacher growth and student achievement, utilizing data-driven decision making, and implementing instructional coaching to support staff development and teacher growth. Prerequisites: Admission to Educational Leadership and Principal Certification Program prerequisite is completion of EDAD 5300 or approval of the department head.

EDAD 5317. Public School Fin Fiscal Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The principles of school finance, budgeting, and accounting procedures. Prerequisite: Mid-Management Certification or approval of department head.

EDAD 5318. Adm Law and Personnel Administration. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A comprehensive study of public school law as it relates to contractual and at-will personnel. Emphasis is placed on advertising, interviewing, selecting, and evaluating personnel. Special attention is given to Equal Employment Opportunity guidelines, Federal Right to Privacy Act, employee contracts, and records. Additional attention is given to employee induction and student records. Prerequisite: Mid-Management Certification or approval of department head.

EDAD 5319. The School Superintendency. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A detailed study of the multiple roles and responsibilities of the chief school administration, including the leadership role with the community, school board, professional staff, and students. Some observations and activities in the public schools and community will be required. Prerequisite: Mid-Management Certification or approval of department head.

EDAD 5335. Edu Plan and Facility Development. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of present and future building and equipment needs of public school systems, including operations, maintenance, and planning for new facilities. Field work will be included in this course relating to various phases of planning and designing educational facilities. Prerequisite: Mid-Management Certification or approval of department head.

EDAD 5336. Instructional Development and School Improvement. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of research and state policy affecting instructional improvement on public school campuses. Special emphasis on results-based accountability systems, including curriculum planning and evaluation, professional development, student assessment, and analyzing student performance data at the campus level.

EDAD 5339. Processes of Educational Leadership. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The purpose of EDAD 5339 Processes of Educational Leadership is to assist academic leaders in developing the utilization of communication skills, school culture development and professional learning communities to address campus improvement planning and create collaborative teams that result in long-term academic and social strategic performance improvement. The course will require students to (1) develop a general knowledge and understanding of multiple perspectives (2) create and frame professional learning communities (3) examine data driven instruction and observation feedback tools (4) develop and implement an effective professional development plan, (5) examine the components of a positive student and staff campus culture aligned with the school vision and (6) identify and evaluate integrated planning and decision-making. Prerequisites: Admission to Educational Leadership and Principal Certification Program prerequisite is completion of EDAD 5300 and EDAD 5316 or approval of the department head.

EDAD 5340. School-Community Relationships. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Systems of interpretation of schools to community publics. Promotion of effective school-community relations through media of communication.

EDAD 5342. Leaderships of Campus Resources. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The purpose of EDAD 5342 Leadership of Campus Resources is to develop the aspiring campus administrator's knowledge and skills in resource management, policy implementation, personal management, and school operations. Topics will include management of the fiscal resources, physical plant, campus budget, federal programs, and human capital (hiring, selection, and retention) within the framework of strategic planning. Prerequisites: Admission to Educational Leadership and Principal Certification Program and completion of EDAD 5300, EDAD 5316, EDAD 5309, and EDAD 5307 or approval of the department head.

EDAD 5345. Leadership of Curriculum Systems. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The purpose of EDAD 5345 Leadership of Curriculum Systems is to introduce the aspiring campus administrator to the processes supporting curriculum development, implementation, and evaluation. Emphasis will be placed high-quality instruction, curriculum alignment, teacher effectiveness, quality professional development, coaching, and ongoing supervision, Topics include: content area best practices, curriculum alignment, curriculum evaluation, assessment, instructional support, resource allocation, staff development, and personnel management. Prerequisites: Admission to Educational Leadership and Principal Certification Program and completion of EDAD 5300, EDAD 5316, EDAD 5309, and EDAD 5307 or approval of the department head.

EDAD 5355. Leadership of Diverse Learning Communities. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The purpose of EDAD 5355 is to assist aspiring administrators in cultivating a campus culture that fosters awareness of individual differences and supports the continuous and appropriate development of all learners in the campus community. The course emphasizes ethical leadership, ensuring student access to effective educators, programs, and services, and addressing barriers that may hinder achievement of campus initiatives and goals. Prerequisites: Admission to Educational Leadership and Principal Certification Program and completion of EDAD 5300 and EDAD 5316 or approval of the department head.

EDAD 5386. Special Problems. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 0 Hours).
Open to graduate students who are capable of developing a problem independently. Problems are chosen by the student and approved in advance by the instructor. Prerequisites: Full admission into the College of Graduate Studies and a graduate degree or certification program.

EDAD 5389. Comparative Education. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A supervised course of comparative education through study abroad. During this course, students will travel internationally to compare educational policies, practices and outcomes in other countries. Upon completion of this course, students will be able to apply their comparative experience to a variety of areas of education including Educational Leadership, Educational Technology, and Curriculum & Instruction. Students will document pre-conceived ideas, a review of related literature for their comparative investigation, and a presentation of their findings.

EDAD 5390. Selected Topics in Educational Administration. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An examination of different topics each semester with a focus on contemporary issues in Educational Administration and leadership. This course may be repeated for credit as the topic changes.

EDAD 5397. Internship for the Superintendent. 3 Credit Hours (Lecture: 1 Hour, Lab: 7 Hours).
Supervised professional activities in the area of the public school superintendency. Intern will be required to demonstrate competencies in the performance of appropriate professional duties as culminating experiences in the Superintendency Program. Prerequisite: Completion of the professional courses in the Superintendency Preparation program or approval of department head.

EDAD 5398. Principal Practicum I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The purpose of EDAD 5398 Principal Practicum is to provide supervised professional activities in the area of educational administration, including the role of elementary and secondary principal and central office administration. The university field supervisor will support principal candidates' development and demonstration of competencies of professional responsibilities according to state standards. As the culminating experience in the Principal Certification Program, students must take Principal Practicum II in the last semester in the program. Prior to enrollment students must have successfully completed Principal Practicum I. Prior to enrolling in Principal Practicum I, all students must submit the Request to Enroll in EDAD 5399 Principal Practicum form, which can be found on the Educational Leadership & Technology (EDLT) web page or requested from the EDLT office. Note: Principal candidates will also need to pass the state principal certification assessment in order to apply for the Principal Standard Certification. Additionally, practicum students must be employed in an educational setting during the entirety of the course. Lastly, the site supervisor who will be mentoring the principal candidate is required to hold current Texas principal certification. This is a two semester course: Principal Practicum I and Principal Practicum II; it must be taken in the fall and spring semesters consecutively. Prerequisites: Admission to Educational Leadership and Principal Certification Program and Completion of Application for Practicum I and completion of EDAD 5300, EDAD 5316, EDAD 5307, EDAD 5309 and EDAD 5399 or approval of the department head.

EDAD 5399. Principal Practicum II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The purpose of EDAD 5399 Principal Practicum II is to provide supervised professional activities in the area of educational administration, including the role of elementary and secondary principal and central office administration. The university field supervisor will support principal candidates' development and demonstration of competencies of professional responsibilities according to state standards. As the culminating experience in the Principal Certification Program, students must take Principal Practicum I in the last two semesters in the program. Prior to enrollment all students must submit the Request to Enroll in EDAD 5399 Principal Practicum form, which can be found on the Educational Leadership & Technology (EDLT) web page or requested from the EDLT office. Note: Principal candidates will also need to pass the state principal certification assessment in order to apply for the Principal Standard Certification. Additionally, practicum students must be employed in an educational setting during the entirety of the course. Lastly, the site supervisor who will be mentoring the principal candidate is required to hold current Texas principal certification. This is a two semester course: Principal Practicum I and Principal Practicum II; it must be taken in the fall and spring semesters consecutively. Prerequisites: Admission to Educational Leadership Program and Principal Certification Program and Completion of Practicum Application and completion of EDAD 5300, EDAD 5316, EDAD 5307, EDAD 5309 or approval of the department head.

EDAD 6088. Dissertation. 1-6 Credit Hours (Lecture: 1-6 Hours, Lab: 0 Hours).
Scheduled when the student is ready to begin the thorough and scholarly investigation of a topic acceptable to the dissertation committee. To be acceptable, the dissertation must give evidence that the candidate has pursued a program of research, the results of which reveal superior academic competence and a significant contribution to the field. Graded on a satisfactory (S) or unsatisfactory (U) basis. Prerequisite: Doctoral Standing and successful completion of the doctoral qualifying examination.

EDAD 6111. Critical issues in Educational Leadership. 1 Credit Hour (Lecture: 1 Hour, Lab: 0 Hours).
This course is to provide an opportunity to study a current and identified administrative problem in a specific school district or combination of districts. Topics include, but are not limited to, future studies, brain-based learning, and strategic visioning and planning. With departmental approval this course may be repeated when the problems or topics differ. Must be taken three times concurrently with residency. Prerequisites: Doctoral Standing.

EDAD 6310. Scholar-Practitioner Leader. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This foundation course explores the role of an educational leader as a scholar-practitioner. Scholar-practitioners use empirical evidence and practitioner expertise to inform effective strategies to improve academic environments within broader educational contexts. Prerequisites: Doctoral Standing.

EDAD 6311. Scholarly Process in Educational Leadership. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The Scholarly Process in Educational Leadership course is designed to help prepare students to critically examine scholarly articles and other written works in the field of educational leadership and write effective papers for publication or presentation. Students address issues of academic and professional style. Topics may include effective writing techniques and strategies, writing to specific audiences, editing, proofreading, APA style, plagiarism, and academic honesty. Prerequisites: Doctoral Standing.

EDAD 6312. Research Design and Critical Analysis. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course explores mixed methods research designs. Topics include evaluating the quality of empirical research, research design, sampling, data collection, ethical issues, and Institutional Review Board developments. Prerequisites: Doctoral Standing.

EDAD 6313. Statistical Methods in Educational Leadership. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introduction to descriptive statistics with an emphasis on inferential statistics. Includes correlation, one way and two way analysis of variance, and experimental design. Requires the use of a hand held calculator, computer, the Statistical Package for the Social Sciences (SPSS), and other statistical software. Prerequisite: EDAD 6312 C or better.

EDAD 6314. Philosophy and Ethics in Educational Leadership. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course applies the concepts of ethics and philosophy to personal and professional decision-making relative to educational organizations, operations, and leadership. Prerequisites: Doctoral Standing.

EDAD 6316. Investigating Problems of Practice in Educational Leadership. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Students identify and systematically investigate problems of practice in educational contexts. Prerequisites: Doctoral Standing.

EDAD 6317. Educational Equity and Identity. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines the complex challenges that can limit student access and success within educational systems. Students explore models and theories of organizational change to identify and address barriers to learning and participation, developing strategies that promote effective, ethical, and inclusive school practices. Prerequisites: Doctoral standing.

EDAD 6320. State and Federal Administrative Law. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines the legal and practical foundations of the modern administrative legal oversight in education. Topics include rationales for delegating laws to administrative agencies; the legal framework that governs agency decision-making; the proper role of agencies in interpreting statutory and regulatory law; and judicial review of agency action as applied to educational environments. Prerequisites: Doctoral Standing.

EDAD 6321. Education Law and Policy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A thorough investigation of policy making processes and the interrelationship between legal and policy making processes at the national, state, and local levels. An in-depth examination of legal principles and laws affecting the administration and management of educational organizations. Prerequisites: Doctoral Standing.

EDAD 6322. Data Analysis and School Improvement. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Emphasis on the fundamentals of inferential data analysis with computer applications, which will enhance abilities in the classroom and in administrative responsibilities. This course will provide information, guidance, and models that will enable professional educators to develop effective evaluation and appraisal systems appropriate to their needs. Interpretation and application of assessment procedures and statistical concepts are emphasized in order for educators to facilitate decision-making and disseminate test results and educational evaluations to the community. Prerequisites: Doctoral Standing.

EDAD 6323. Organizational Theory and Change in Education. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course focuses on the identification and application of organizational theories and behavior to the problems of practice in a variety of educational settings. Prerequisites: Doctoral Standing.

EDAD 6324. Models and Theories of Educational Leadership. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will provide an exploration of key models and theories of educational leadership and examine the impact of each in educational settings. Prerequisites: Doctoral Standing.

EDAD 6325. Data Analysis. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Students develop knowledge and skills in mixed methods data analysis techniques. Students select and apply appropriate data analysis techniques to address a variety of research questions. Prerequisites: Doctoral Standing and Successful Completion of EDAD 6311, EDAD 6312, and EDAD 6316.

EDAD 6330. Educational Policy and Governance. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course explores the legislative policy-making process and how it influences educational governance. It also examines the role of agencies and their relationships to educational administration. Prerequisites: Doctoral Standing.

EDAD 6331. Advanced Data Analysis. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Techniques address the approach to data analyses required to examine the problem of practice. Various types of approaches to analyses applicable to the student's selected research topic will be practiced. Prerequisites: Doctoral Standing Successful Completion of: EDAD 6311: Scholarly Process EDAD 6312: Research Design and Critical Analysis EDAD 6316: Investigating Problems of Practice in Educational Leadership EDAD 6325: Data Analysis.

EDAD 6333. Advanced Statistical Methods in Educational Leadership. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Covers statistical techniques such as multivariate ANOVA, exploratory factor analysis, and canonical correlation analysis. Introduces concepts surrounding model building techniques such as confirmatory factor analysis and structural equation modeling. Prerequisite: Doctoral standing.

EDAD 6335. Qualitative Research. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduction to qualitative research designs and their philosophical assumptions, and how these influence the research questions, data collection, data analysis, verification, and use of theory and literature. Students will be introduced to five approaches within the qualitative framework: narrative, case study, ethnography, grounded theory, and phenomenology. The course will also address ethical issues in qualitative research and strategies for reporting qualitative data. Prerequisite: Admission to the ELPS Doctoral Program.

EDAD 6340. Foundations of Higher Education. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of Foundations of Higher Education emphasizes the origins and specialized purposes of colleges and universities. The organizational structure, governance and administrative functions of higher education are reviewed, compared, and critiqued. With its roots embedded in religion and, more recently in the European university model, American higher education institutions will be studied from an historical perspective. The course will also cover selected contemporary issues facing today's universities, both public and private, with a link to historical, sociological and theoretical underpinnings.

EDAD 6341. Administrative Leadership in Higher Education. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of Administrative Leadership in Higher Education emphasizes a thorough investigation of higher education administration theory applied to the practice of performing academic duties combined with an in-depth examination of organizational influences that form the academic, political, legal, governmental, financial, and local framework involved in the administration and management of educational organizations.

EDAD 6342. Fin and Resource Management in Higher Education. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of Finance and Resource Management in Higher Education emphasizes higher education's resource acquisition, allocation and management practices. A comprehensive examination is made of the financing of higher education with significant attention given to resource acquisition, allocation, budgeting processes, and reporting standards. Business management functions in higher education such as audits, salary administration, risk management, campus security, informational resources, and human resources are discussed and analyzed.

EDAD 6343. Teaching and Assessment in Higher Education. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of Teaching and Assessment in Higher Education emphasizes the exploration of basic organization, structure, development and delivery of college curriculums. The process of teaching and learning through the development and evaluation of student learning and instructional outcomes is investigated. The relationship between the curriculum and basic model of teaching, research and service are introduced with a culminating review of the academic accreditation and institutional benchmarking process and procedures.

EDAD 6344. Student Service in Higher Education. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of Student Services in Higher Education emphasizes the exploration of basic organization, structure, and delivery of campus support services for students in higher education. Student populations in colleges and universities will be explored. Student campus life will be studied including but not limited to such topics as housing, student rights, student governance, student health services, food services, campus safety and security, student organizations, and student programming.

EDAD 6345. Comparative Higher Education Systems. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of Comparative Higher Education Systems emphasizes post-secondary educational systems, structures, and organizational issues in tertiary educational systems outside the United States. The course will address topics such as internal and external governance of post-secondary institutions, access to higher education, student affairs, academic personnel, curriculum, instruction, and educational reform in higher education systems in selected countries. Prerequisites: Doctoral standing or approval of department head.

EDAD 6347. Trends and Issues in Higher Education. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of Trends & Issues in Higher Education emphasizes the critical examination of emerging and timely topics and trends that are important to the operation and development of higher education. Using a variety of survey research methods and literature reviews, new and current environmental challenges encountered by institutions of higher education are investigated. Strategies of how to identify and monitor trends and issues are studied. The impact and interaction of external and internal trends and issues on higher education are examined.

EDAD 6351. Accountability in Education. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides students an opportunity to make personal and professional decisions relative to academic and fiscal accountability systems. These decisions impact school organization, operation, and leadership in an academic, fiscal, and cultural sense.

EDAD 6352. Human Resource Administration for Educational Leaders. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course focuses on essential human resource skills and knowledge that educational leaders use to implement strategies and policies related to staff management. Prerequisites: Doctoral Standing.

EDAD 6353. Constituent Relations In Education. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to examine strategic public relations planning, research, and evaluation techniques for educational leaders. The course connects theory to practical applications in the context of planning, implementation, and evaluation of effective communication with community constituents.

EDAD 6354. Finance for School Leaders. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Public educational funding is examined as a requirement of school leaders in compliance with federal, state, and local school laws and policies. Educational finance is examined according to various finance theories and models, such as political, legal, economic, and social issues. Prerequisites: Doctoral standing.

EDAD 6355. Applied Measurement: Issues and Practices. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Discusses issues surrounding measurement and testing in education research and practice. Includes coverage of classical test theory and reliability indices, instrument validity, and concepts surrounding test development and construction. Prerequisite: Doctoral standing.

EDAD 6380. Superintendent Leadership and Communication. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to give students a comprehensive view of communication while leading a learning organization at the district level. Emphasis will be placed on the scope and importance of effective communication in education, and the role of communication in establishing favorable workplace outcomes. This course offers an opportunity to learn and apply practical principles of interpersonal communication. The course will examine basic communication concepts, theories, and practices relevant to transferring meaning between two or more people. A field experience will be required as part of the course. Prerequisite: Principal or Mid-management certification or approval of department head.

EDAD 6381. Superintendent Leadership and Human Resources. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to assist with the recruitment, hiring, dismissal, and supervision of Texas public school employees. State laws regarding hiring and dismissal will be covered A comprehensive study of public school law as well as performance management and interpersonal conflict of employees as it relates to contractual and at-will personnel. Emphasis is placed on advertising, interviewing, selecting, and evaluating personnel. Special attention is given to Equal Employment Opportunity guidelines, Federal Right to Privacy Act, employee contracts, and records.Additional attention is given to employee induction and student record. A field experience will be required as part of the course. Prerequisite: Principal or Mid-management certification or approval of department head.

EDAD 6382. Superintendent Leadership and Resource Allocation. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course requires participants to describe and synthesize federal, state, and local revenues as they relate to school district budgeting and finance through empirically based research and direct resources based upon needs assessment from the district improvement plan (DIP) to support goals and objectives identified from the DIP. A detailed study of the multiple roles and responsibilities of the chief school administration, including the leadership role with the community, school board, professional staff, and students. Some observations and activities in the public schools and community will be required. A field experience will be required as part of the course. Prerequisite: Principal or Mid-management certification or approval of department head.

EDAD 6383. Superintendent Leadership and Accountability. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to assist educational leaders in developing and applying leadership accountability skills in public school organizations. The focus of this course is on the appropriate use of leadership accountability skills within the framework of theory and research to enhance the organizational effectiveness and improve organizational culture. Emphasis is placed on the identification and use of accountability skills supported by the Texas Education Agency as an integral part of Texas superintendent certification preparation program. Accountability leadership is one of the essential administrative functions for the operation of effective learning organizations. In this course, students will have the opportunity to view the accountability process as it pertains to improving student performance. A study of research and state policy affecting instructional improvement in public school systems.Special emphasis on result-based accountability systems, including curriculum planning and evaluation, professional development, and student assessment processes.A field experience will be required as part of the course.

EDAD 6384. Superintendent Leadership Practicum. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course involves superintendent certification program students participating in supervised professional activities in the area of district-level public school superintendent and central office administrator practices. The practicum is required to demonstrate competence in the performance of appropriate professional duties while in a district-level leadership position. No more than 3 semester hours of internship course work can be used to satisfy certification plan requirements.

EDAD 6385. Advanced Seminar in Educational Leadership. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Design of research and inquiry in various areas of educational administration; application of models and research procedures from the social and managerial sciences to policy issues in educational organizations. Prerequisite: EDAD 6331 C or better.

EDAD 6386. Problems in Educational Leadership. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Open to doctoral students who wish to collaboratively develop a problem with a doctoral faculty member. Culminating project will be disseminated as a presentation, publication, or in another appropriate scholarly venue/format as determined by the doctoral faculty member. Prerequisites: Full admission into the doctoral program and approval of advisor.

EDAD 6389. Comparative Education. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A supervised course of comparative education through study abroad. During this course, students will travel internationally to compare educational policies, practices and outcomes in other countries.

EDAD 6390. Selected Topics in Educational Leadership. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An examination of different topics each semester with a focus on contemporary issues in educational leadership. This course may be repeated for credit as the topic changes. Prerequisite Course(s): Admission to the doctoral program in Educational Leadership.

EDAD 6399. Extended Internship in Education. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Supervised activities in a governmental, organizational, or higher education setting. During the extended internship, the student will be required to demonstrate competencies appropriate to the professional setting of the internship. Prerequisites: Doctoral Standing.

School of Behavioral Sciences

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The **School of Behavioral Sciences** houses the **Department of Counseling**, the **Department of Psychological Sciences,** the **Division of Child and Family Studies,** and the **Division of Sociology**.

At the graduate level, the Department of Psychological Sciences offers the Master of Science in Applied Psychology. All students in the program complete courses in statistics, research methods, theories of learning, and history and systems of psychology. The remaining courses can be chosen from a variety of electives within the psychological and behavioral sciences depending upon the chosen track: Thesis, applied project, teaching, or general options. Upon completion of this program, students will have developed research and writing skills that will further their education at the doctoral level or to pursue a career in applied research, data science, college or university-level teaching, training, development, and many other areas.

Within the Division of Child and Family Studies, the school offers the Master of Science in Child and Family Studies. This is a 30-hour online program with options for a thesis or a non-thesis track. Upon completion of this degree, students may pursue leadership positions in child advocacy, medical facilities working with children, research, government agencies, and college or university-level teaching positions.

The Department of Counseling offers the Master of Clinical Mental Health Counseling. The M.S. in Clinical Mental Health Counseling degree includes academic coursework that satisfies both core content areas and clinical experience requirements for Licensed Professional Counselor (LPC) in Texas and complies with our CACREP accreditation. Students interested in becoming a school counselor can take coursework and complete school field experiences to be eligible to take the TExES school certification test.

Mission

The mission of the **School of Behavioral Sciences** is to provide an academically challenging education, innovative instruction, pioneering research, and impactful community engagement. We merge theory and practice to create high-impact programs. We equip students with lasting, transferable skills that prepare them for diverse and meaningful careers.

Vision

The vision of **The School of Behavioral Sciences** is to advance the application of psychological, developmental, and sociological science and knowledge, by offering high-impact programs with resonance. We will be leaders in teaching, research, and scholarship as we serve our professions and communities. We advance innovative solutions to local and global social problems through cutting-edge research and practice and seek to motivate future generations to elevate the public's understanding of human behavior.

Department of Counseling

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The Department of Counseling offers three graduate degrees: A Master of Science (M.S.) in Clinical Mental Health Counseling, a Master of Science (M.S.) in School Mental Health Counseling, and a Doctor of Philosophy (Ph.D.) in Counseling. Our M.S. in Clinical Mental Health Counseling degree is offered at the Fort Worth Chisholm Trail, Waco, and Stephenville locations. Our M.S. in School Mental Health Counseling is offered at our Fort Worth Chisholm Trail and Waco locations. Our Ph.D. in Counseling is offered at the Fort Worth Chisholm Trail location.

The CACREP-accredited M.S. in Clinical Mental Health Counseling degree includes academic coursework that satisfies both core content areas and clinical experience requirements for Licensed Professional Counselor (LPC) in Texas.

The M.S. in School Mental Health Counseling degree also includes academic coursework that satisfies both core content areas and clinical experience requirements for Licensed Professional Counselor (LPC) in Texas and satisfies coursework and school field experiences requirements to be eligible to take the TExES school certification test. It is aligned with the 2024 CACREP accreditation standards for entry-level programs in Clinical Mental Health Counseling.

The Ph.D. in Counseling degree is designed to graduate doctoral-level professional counselors who are equipped as advanced researchers, counselor educators, and practitioners. It is aligned with the 2024 CACREP accreditation standards for doctoral programs in counselor education and supervision.

Mission Statement

The Department of Counseling seeks to prepare professional counselors who have developed sound counseling skills through a variety of experiential learning, acquired a comprehensive theoretical knowledge base, and developed a strong professional counselor identity.

The Department's intent is for graduates to be holistic, moral, and ethical thinkers, multiculturally competent professionals, scholars, and leaders who demonstrate civility and integrity, while contributing meaningfully and responsibly to the counseling profession.

Vision Statement

The Department of Counseling seeks local, state, regional, national, and international prominence as a collaborative and transformative community engaged in exemplary research, education, and service that benefit the profession of counseling and the public it serves.

M.S. in Clinical Mental Health Counseling (CMHC)

Clinical Mental Health Counseling (CMHC) Curriculum Objectives

The CMHC curriculum is based on objectives that provide students with a structured sequence of curricular and clinical experiences reflecting the present and projected needs of a pluralistic society for which specialized counseling and human development activities have been developed. The objectives are consistent with state licensing/certification and national educational requirements of the Council for Accreditation of Counseling and Related Educational Programs (CACREP). The stated objectives are evidenced in course objectives and assignments embedded in course syllabi. These objectives reflect input from the Department faculty, Advisory Board, and former students of the Department.

Mission Statement

The Master of Science in Clinical Mental Health Counseling prepares multiculturally responsive, ethically grounded professional counselors for community mental health, healthcare, private practice, and integrated health settings. Through experiential learning, rigorous coursework, and supervised clinical practice, we develop theoretically grounded counselors who advocate for mental health in public and private settings, and lead with integrity, humility, scholarship, and service to promote clients' holistic wellbeing and lifelong growth.

The CMHC curriculum is organized around the following set of objectives:

1. Professional Identity: Students will demonstrate an understanding of professional functioning including history, roles, technological competence, organizations, credentialing, advocacy process, and ethical standards in professional counseling.
2. Social and Cultural Diversity: Students will demonstrate an understanding of the cultural context of relationships, issues, and trends in a multicultural and diverse society as they relate to factors such as age, ethnicity, nationality, culture, gender, sexual orientation, physical characteristics, education, family values, spiritual values, socioeconomic status, and other unique characteristics.
3. Human Growth and Development: Students will demonstrate an understanding of individuals at all developmental levels, including theories of development across the life span, theories of learning and personality development, human behavior including environmental factors effecting both normal and abnormal behavior, ethical and legal considerations, and strategies for facilitating development over the life span.
4. Career Development: Students will demonstrate an understanding of career development and related life factors including theories and developmental modes, career development program planning, educational and occupation information as well as computer-based career information systems, diversity issues in career development, career planning, placement and evaluation including assessment instruments, ethical and legal considerations, and career counseling techniques.
5. Helping Relationships: Students will demonstrate an understanding of counseling and consultation processes including basic interviewing and counseling skills as well as knowledge and application of counseling theories. An understanding of family and other systems theories in family assessment and counseling is included. Other helping considerations include knowledge of self, consultation and ethical and legal considerations.
6. Group Work: Students will demonstrate an understanding of group development, dynamics, counseling theories, group counseling methods, and skills and other group work approaches.
7. Assessment: The program will expect the student to demonstrate an understanding of individual and group approaches to assessment and evaluation.
8. Research and Program Evaluation: Students will demonstrate an understanding of research, statistical analysis, needs assessment, and program evaluation
9. Clinical Mental Health Counseling: Students demonstrate knowledge of the mental health counselor role including interviewing skills, diagnosis, and advocacy.

M.S. in Clinical Mental Health Counseling Admissions Procedure (Two-Step Process)

Step 1: Apply to College of Graduate Studies

1. Complete and submit the College of Graduate Studies Application.
2. Submit official transcripts of all undergraduate and graduate academic coursework. Applicants must have a 3.0 GPA or higher on last sixty (60) hours of undergraduate or graduate course work.
3. All documents listed above must be submitted and processed by:
   a. **Priority Deadline is December 1**
   b. **Regular Deadline is April 1**
4. College of Graduate Studies will process your documents and application. Once COGS has processed and forwarded your application, the Department of Counseling will reach out via email with information regarding the interview process.

Step 2: Department of Counseling - Clinical Mental Health Counseling Program

1. Complete Department of Counseling program application.
2. Participate in on-campus interview process.
3. If accepted into pre-admissions in the CMHC Program, attend Program Orientation (Mandatory).
4. Students will be charged a $50.00 program fee after the first day of class.

Admissions Interviews

The following discusses the Program admission interview process:

1. The Department must receive a completed application notice for the applicant from the College of Graduate Studies.
2. The applicant must complete a program application, after which time they will be scheduled for an interview. All applicants must attend and participate in the interview process in person.

Interview Process

The following outlines the Interview process for the Department:

1. Applicants meet with a faculty member for an individual interview.
2. Applicants will participate in a group exercise with other potential students.
3. An Applicant must meet the Program standards for admission.
4. All applicants are notified of status after interviews are completed for all campuses. This usually is within two to three weeks after the interview process.
5. If an applicant is denied to move further in the process, they may reapply for the next semester the program accepts applicants.
6. If an applicant is placed on the waitlist, applicant will be notified before the first day of the Fall semester of status. Please note: waitlist does not mean acceptance into the program.

Accepted from Interviews

Applicants are accepted for pre-admission to the Department of Counseling for the fall semester. Applicants who are committed to the Chisholm Trail Fort Worth location must choose to enroll in six hours or nine hours their first semester. Applicants who are committed to the Stephenville location must enroll in nine hours their first semester. Applicants who are committed to the Waco location must enroll in six hours their first semester. For students taking six hours, they will enroll in CNSL 5350 Foundations of Counseling and CNSL 5353 Counseling Theories and Applications. Students taking nine hours will enroll in CNSL 5350 Foundations of Counseling, CNSL 5353 Counseling Theories and Applications, and CNSL 5311 Multicultural Counseling. This is a year-round program requiring students to attend classes in the Fall, Spring, and Summer semesters.

Mandatory Program Orientation

Applicants must attend the mandatory Program Orientation prior to the beginning of the Fall semester. It is important for our new students to understand all the components of the CMHC Program Student Handbook. If you have a university excused absence the day of the Program Orientation, you will need to get approval from the department head, provide documentation, and make up the program orientation before the start of the Fall semester. Otherwise, if an applicant does not attend the Program Orientation, then they will be asked to unenroll in Fall courses.

Professional School Counselor Option*

It is the student's responsibility to contact the Department's School Counseling Coordinator, Dr. Chris Wilder, to discuss the requirements for the School Counseling Certification. Dr. Wilder's contact information is wilder@tarleton.edu (WILDER@tarleton.edu) and/or 254-299-8321. See the School Counseling Handbook on the Department webpage for more information.

**The Professional School Counselor option under the M.S. in Clinical Mental Health Counseling degree program will no longer be available after Fall 2025.*

Applicants with History of Felony or Misdemeanor Convictions

Applicants with any history of felony or misdemeanor convictions may be denied licensure. It is the student's sole responsibility to check with the Texas Behavioral Health Executive Council (BHEC). The Department bears no responsibility in this matter.

Master of Science in Clinical Mental Health Counseling Program Requirements :

Core Requirements:		
CNSL 5301	Research Methods in Counseling	3
CNSL 5304	Human Growth and Development in Counseling	3
CNSL 5311	Multicultural Counseling	3
CNSL 5313	Crisis Interventions and Management for Counselors	3
CNSL 5332	Psychopharmacology	3
CNSL 5350	Foundations of Counseling	3
CNSL 5351	Career Counseling	3
CNSL 5353	Counseling Theories and Applications	3
CNSL 5354	Group Procedures for Counselors	3
CNSL 5356	Introduction to Family Counseling	3
CNSL 5357	Pre-Practicum	3
CNSL 5358	Diagnosis and Treatment Planning	3
CNSL 5381	Assessment in Counseling	3
CNSL 5391	Ethical Foundations of Counseling	3
CNSL 5394	Behavioral Addictions and Substance Abuse	3
CNSL 5397	Practicum	3
CNSL 5399	Internship	3
CNSL 5399	Internship	3
Choose two of the following:		6
CNSL 5325	Building, Marketing, and Managing a Private Practice	
CNSL 5326	Sandtray Therapy	
CNSL 5333	Advanced Studies in Crisis, Trauma, and Mental Health	
CNSL 5334	Advanced Sandtray Therapy	
CNSL 5335	Spirituality in Counseling	
CNSL 5336	Counseling Immigrant and Refugee Clients	
CNSL 5337	Disability Culture, Society, and the Individual	
CNSL 5338	Non-Suicidal Self-Injury (NSSI): Identification and Treatment	
CNSL 5352	Seminar in School Counseling	
CNSL 5359	Evidence Based Counseling	

CNSL 5370	Expressive Arts in Counseling
CNSL 5371	Couples Counseling
CNSL 5372	Interpersonal Neurobiology for Counseling
CNSL 5373	Using Mindfulness in Counseling
CNSL 5374	Counseling Grief and Loss
CNSL 5376	Advanced Play Therapy
CNSL 5377	Wilderness Counseling
CNSL 5378	Addictions and Family Systems
CNSL 5382	Behavior Management and Counseling
CNSL 5383	Counseling Veteran, Law Enforcement, and First Responders
CNSL 5390	Selected Topics in Counseling
CNSL 5392	Counseling Children and Adolescents
CNSL 5393	Play Therapy
Total Hours	**60**

M.S. in School Mental Health Counseling (SMHC)

School Mental Health Counseling (SMHC) Curriculum Objectives

The SMHC curriculum is based on objectives that provide students with a structured sequence of curricular and clinical experiences reflecting the present and projected needs of a pluralistic society for which specialized counseling and human development activities have been developed. The objectives are consistent with state licensing/certification and national educational requirements of the Council for Accreditation of Counseling and Related Educational Programs (CACREP). The stated objectives are evidenced in course objectives and assignments embedded in course syllabi. These objectives reflect input from the Department faculty, Advisory Board, and former students of the Department.

Mission Statement

The Master of Science in School Mental Health Counseling prepares multiculturally responsive, ethically grounded professional counselors for PK–12 schools and allied community mental health settings. Through experiential learning, rigorous coursework, and supervised clinical practice, we develop theoretically grounded counselors who advocate for mental health in school climates, and lead with integrity, humility, scholarship, and service to promote students' academic progress, career success, relational health, and lifelong growth.

The SMHC curriculum is organized around the following set of objectives:

1. Professional Identity: Students will demonstrate an understanding of professional functioning including history, roles, technological competence, organizations, credentialing, advocacy process, and ethical standards in professional counseling.
2. Social and Cultural Diversity: Students will demonstrate an understanding of the cultural context of relationships, issues, and trends in a multicultural and diverse society as they relate to factors such as age, ethnicity, nationality, culture, gender, sexual orientation, physical characteristics, education, family values, spiritual values, socioeconomic status, and other unique characteristics.
3. Human Growth and Development: Students will demonstrate an understanding of individuals at all developmental levels, including theories of development across the life span, theories of learning and personality development, human behavior including environmental factors effecting both normal and abnormal behavior, ethical and legal considerations, and strategies for facilitating development over the life span.
4. Career Development: Students will demonstrate an understanding of career development and related life factors including theories and developmental modes, career development program planning, educational and occupation information as well as computer-based career information systems, diversity issues in career development, career planning, placement and evaluation including assessment instruments, ethical and legal considerations, and career counseling techniques.
5. Helping Relationships: Students will demonstrate an understanding of counseling and consultation processes including basic interviewing and counseling skills as well as knowledge and application of counseling theories. An understanding of family and other systems theories in family assessment and counseling is included. Other helping considerations include knowledge of self, consultation and ethical and legal considerations.
6. Group Work: Students will demonstrate an understanding of group development, dynamics, counseling theories, group counseling methods, and skills and other group work approaches.
7. Assessment: The program will expect the student to demonstrate an understanding of individual and group approaches to assessment and evaluation.
8. Research and Program Evaluation: Students will demonstrate an understanding of research, statistical analysis, needs assessment, and program evaluation.
9. School Mental Health Counseling: Students demonstrate knowledge of the school mental health counselor role including interviewing skills, diagnosis, and advocacy within a school setting.

M.S. in School Mental Health Counseling Admissions Procedure (Two-Step Process)

Step 1: Apply to College of Graduate Studies

1. Complete and submit the College of Graduate Studies Application.
2. Submit official transcripts of all undergraduate and graduate academic coursework. Applicants must have a 3.0 GPA or higher on last sixty (60) hours of undergraduate or graduate course work.
3. All documents listed above must be submitted and processed by:
   a. **Priority Deadline is December 1**
   b. **Regular Deadline is April 1**
4. College of Graduate Studies will process your documents and application. Once COGS has processed and forwarded your application, the Department of Counseling will reach out via email with information regarding the interview process.

Step 2: Department of Counseling - School Mental Health Counseling Program

1. Complete Department of Counseling program application.
2. Participate in on-campus interview process.
3. If accepted into pre-admissions in the SMHC Program, attend Program Orientation (Mandatory).
4. Students will be charged a $50.00 program fee after the first day of class.

Admissions Interviews

The following discusses the Program admission interview process:

1. The Department must receive a completed application notice for the applicant from the College of Graduate Studies.
2. The applicant must complete a program application, after which time they will be scheduled for an interview. All applicants must attend and participate in the interview process in person.

Interview Process

The following outlines the Interview process for the Department:

1. Applicants meet with a faculty member for an individual interview.
2. Applicants will participate in a group exercise with other potential students.
3. An Applicant must meet the Program standards for admission.
4. All applicants are notified of status after interviews are completed for all campuses. This usually is within two to three weeks after the interview process.
5. If an applicant is denied to move further in the process, they may reapply for the next semester the program accepts applicants.
6. If an applicant is placed on the waitlist, applicant will be notified before the first day of the Fall semester of status. Please note: waitlist does not mean acceptance into the program.

Accepted from Interviews

Applicants are accepted for pre-admission to the Department of Counseling for the fall semester. Applicants who are committed to the Chisholm Trail Fort Worth location are permitted to enroll in six hours or nine hours their first semester. Applicants who are committed to the Waco location are permitted to enroll in six hours their first semester. For students taking six hours, they will enroll in CNSL 5350 Foundations of Counseling and CNSL 5353 Counseling Theories and Applications. Students taking nine hours will enroll in CNSL 5350 Foundations of Counseling, CNSL 5353 Counseling Theories and Applications, and CNSL 5311 Multicultural Counseling. This is a year-round program requiring students to attend classes in the Fall, Spring, and Summer semesters.

Mandatory Program Orientation

Applicants must attend the mandatory Program Orientation prior to the beginning of the Fall semester. It is important for our new students to understand all the components of the CMHC Program Student Handbook. If you have a university excused absence the day of the Program Orientation, you will need to get approval from the department head, provide documentation, and make up the program orientation before the start of the Fall semester. Otherwise, if an applicant does not attend the Program Orientation, then they will be asked to unenroll in Fall courses.

School Counseling Certification

It is the student's responsibility to contact the Department's School Counseling Coordinator, Dr. Chris Wilder, to discuss the requirements for the School Counseling Certification. Dr. Wilder's contact information is wilder@tarleton.edu (WILDER@tarleton.edu) and/or 254-299-8321. See the School Counseling Handbook on the Department webpage for more information.

Applicants with History of Felony or Misdemeanor Convictions

Applicants with any history of felony or misdemeanor convictions may be denied licensure. It is the student's sole responsibility to check with the Texas Behavioral Health Executive Council (BHEC). The Department bears no responsibility in this matter.

Master of Science in School Mental Health Counseling Program Requirements :

CNSL 5350	Foundations of Counseling	3
CNSL 5353	Counseling Theories and Applications	3
CNSL 5301	Research Methods in Counseling	3
CNSL 5304	Human Growth and Development in Counseling	3
CNSL 5311	Multicultural Counseling	3
CNSL 5313	Crisis Interventions and Management for Counselors	3
CNSL 5332	Psychopharmacology	3
CNSL 5351	Career Counseling	3
CNSL 5354	Group Procedures for Counselors	3
CNSL 5356	Introduction to Family Counseling	3
CNSL 5358	Diagnosis and Treatment Planning	3
CNSL 5381	Assessment in Counseling	3
CNSL 5391	Ethical Foundations of Counseling	3
CNSL 5394	Behavioral Addictions and Substance Abuse	3
CNSL 5352	Seminar in School Counseling	3
Clinical Courses		12
CNSL 5357	Pre-Practicum	
CNSL 5397	Practicum	
CNSL 5398	Internship: School Mental Health Counseling [1]	
Elective (Chose one of the following)		3
CNSL 5326	Sandtray Therapy	
CNSL 5370	Expressive Arts in Counseling	
CNSL 5392	Counseling Children and Adolescents	
CNSL 5393	Play Therapy	
Total Hours		**60**

[1] CNSL 5398 must be taken for two semesters in a row for a total of six hours

Ph.D. in Counseling

Doctor of Philosophy in Counseling Admissions Procedure (Two-Step Process)

Step 1: Apply to College of Graduate Studies and Department of Counseling

1. Complete and submit the College of Graduate Studies Application.
2. Submit official transcripts of all undergraduate and graduate academic coursework. Applicants must have a master's degree in counseling or a counseling-related field and a 3.3 GPA or higher on last sixty (60) hours of graduate course work.
   a. If an applicant has a master's in counseling or counseling-related field that is less than 60 hours and/or does not meet curricular requirements, if accepted into the Program, then they will be required to take leveling courses before commencing their doctoral coursework.
3. Submit complete Department of Counseling program application, personal statement, and three letters of recommendation to the Department of Counseling.
4. All documents listed above must be submitted and processed by January 15.
5. Once all application materials have been received, the Department of Counseling will reach out via email with information regarding the interview process.

Step 2: Department of Counseling - PhD in Counseling Program

1. Participate in on-campus interview process.
2. If accepted into the counseling doctoral program, attend Program Orientation (Mandatory).

Admissions Interviews

The following discusses the Program admission interview process:

1. The Department must receive a completed application notice for the applicant from the College of Graduate Studies and all Department of Counseling application documents.
2. The applicant will be scheduled for an interview. All applicants must attend and participate in the interview process in person.

Interview Process

The following outlines the Interview process for the Department:

1. Applicants meet with two faculty members for an individual interview.
2. Applicants will participate in a group exercise with other potential students.
3. Applicants will complete a written response to a selected topic in counseling during the interview day.
4. An Applicant must meet the Program standards for admission.
5. All applicants are notified of status after interviews are completed. This usually is within two weeks after the interview process.
6. If an applicant is denied to move further in the process, they may reapply for the next semester the program accepts applicants.
7. If an applicant is placed on the waitlist, applicant will be notified before the first day of the Fall semester of status. Please note: waitlist does not mean acceptance into the program.

Accepted from Interviews

Applicants are accepted for admission to the Department of Counseling for the fall semester. Applicants must enroll in nine hours their first semester: CNSL 6391 Advanced Practicum in Counseling, CNSL 5300 Advanced Theories of Counseling, and CNSL 6301 Advanced Multicultural and Social Justice Advocacy in Counseling. This is a full-time, year-round program requiring students to attend classes in the Fall, Spring, and Summer semesters.

Mandatory Program Orientation

Applicants must attend the mandatory Program Orientation prior to the beginning of the Fall semester. It is important for our new students to understand all the components of the Counseling Doctoral Program Student Handbook. If you have a university excused absence the day of the Program Orientation, you will need to get approval from the department head, provide documentation, and make up the program orientation before the start of the Fall semester. Otherwise, if an applicant does not attend the Program Orientation, then they will be asked to unenroll in Fall courses.

Doctor of Philosophy in Counseling Program Requirements:

CNSL 6391	Advanced Practicum in Counseling	3
CNSL 6300	Advanced Theories of Counseling	3
CNSL 6301	Advanced Multicultural and Social Justice Advocacy in Counseling	3
CNSL 6378	Advanced Practicum in Counseling II	3
CNSL 6303	Advanced Ethics, Law, and Philosophy in Counseling	3
CNSL 6306	Advanced Assessment in Counseling	3
CNSL 6379	Doctoral Internship I: Counseling	3
CNSL 6394	Advanced Research Methods in Counseling	3
CNSL 6380	Doctoral Internship II: Counseling	3
CNSL 6302	Theory and Process of Counselor Supervision	3
CNSL 6392	Practicum in Counselor Supervision	3
CNSL 6399	Research & Publication	3
CNSL 6381	Doctoral Internship III: Clinical Supervision	3
CNSL 6304	Leadership and Advocacy	3
CNSL 6305	Instructional Theory in Counselor Education	3
CNSL 6382	Doctoral Internship IV: Teaching	3
CNSL 6396	Research in Counseling: Proposal Development	3
CNSL 6397	Quantitative Research Methods	3
Choose one research class not previously taken for your research elective		3
CNSL 6398	Qualitative Research Methods	
CNSL 6308	Program Evaluation and Grant Writing	
CNSL 6395	Multivariate Statistics in Counseling	
CNSL 6388	Dissertation I	3

CNSL 6389	Dissertation II	3
Total Hours		**63**

Creative Approaches to Counseling

Choose 3 Courses		9
CNSL 6393	Play Therapy	
CNSL 6326	Sandtray Therapy	
CNSL 6370	Expressive Arts in Counseling	
CNSL 6376	Advanced Play Therapy	
CNSL 6377	Wilderness Counseling	
CNSL 6334	Advanced Sandtray Therapy	
CNSL 6086	Problems Course	
Total Hours		**9**

Multicultural Approaches to Counseling

Choose 3 courses		9
CNSL 6309	Seminar in Rural Mental Health	
CNSL 6335	Spirituality in Counseling	
CNSL 6336	Counseling Immigrant and Refugee Clients	
CNSL 6337	Disability Culture, Society, and the Individual	
CNSL 6383	Counseling Veterans, Law Enforcement, and First Responders	
CNSL 6086	Problems Course	
Total Hours		**9**

Trauma Counseling

Choose 3 Courses		9
CNSL 6372	Interpersonal Neurobiology for Counseling	
CNSL 6359	Evidence Based Counseling	
CNSL 6373	Using Mindfulness in Counseling	
CNSL 6383	Counseling Veterans, Law Enforcement, and First Responders	
CNSL 6374	Counseling Grief and Loss	
CNSL 6338	Non-Suicidal Self Injury (NSSI): Identification and Treatment	
CNSL 6333	Advanced Studies in Crisis, Trauma, and Mental Health	
CNSL 6086	Problems Course	
Total Hours		**9**

Chair

- Dr. Ryan D. Foster

Professors

- Dr. Beck A. Munsey
- Dr. Pedro J. Blanco

Associate Professors

- Dr. Ryan Holliman
- Dr. Christopher Wilder

Assistant professors

- Dr. Elizabeth Aguilar
- Dr. Melissa Deroche
- Dr. Kelly Guidry
- Dr. Crystal Hughes
- Dr. Blake Mallory
- Dr. Rebekah Pender
- Dr. Madison Walker
- Dr. Leila Warraich

Professor emeritus

- Dr. Linda Duncan

Courses

CNSL 5086. Problems. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 0 Hours).
Open to graduate students in counseling who are independently capable of developing a problem in the area of counseling and guidance. Problems chosen by the student must be approved in advance by the instructor.

CNSL 5301. Research Methods in Counseling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course emphasizes research in the counseling field, basic statistics, literature review, proposal and report development, research implementation, needs assessment, program development, and ethical and legal considerations regarding research through the presentation of a formal research proposal and/or presentation of a completed research report. In addition the course explores the history and theory underlying program evaluation, approaches to evaluation, and techniques used for program evaluation, students consider the importance of scholarly writing and learn how to identify a topic for research and how to conduct a literature search. Prerequisites: CNSL 5350 and CNSL 5353.

CNSL 5304. Human Growth and Development in Counseling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course introduces studies that provide an understanding of the nature and needs of persons at all developmental levels and in cultural contexts. This course also provides a systematic study of human development emphasizing physical, personality, cognitive, moral and psychosocial developmental theories and issues, with an emphasis on facilitating optimal development and wellness over the lifespan. This course will attempt to merge theory into practice and integrate critical thinking concepts associated with developmental factors in human development. Prerequisites: CNSL 5350 and CNSL 5353.

CNSL 5311. Multicultural Counseling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course studies interactions across social/cultural groups in America, experiences of minorities and ethnic groups, issues related to gender and age, problems within family systems, and contemporary and proactive sources of change. This course provides an understanding of how values and mores, interaction patterns, social conditions, and trends related to cultural and ethnic diversity affect counseling. Emphasis is on developing knowledge, skills, and attitudes for more effective counseling with persons different from the counselor regarding characteristics such as culture, personal identity, backgrounds, attributes, values, physical disability, and religious preference. Substantial attention is given to developing awareness of one's own values, attitudes, and beliefs as they relate to counseling in society. Students must earn a grade of "B" or better. Prerequisites: CNSL 5350 and CNSL 5353.

CNSL 5313. Crisis Interventions and Management for Counselors. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is an introduction to the research and practice of crisis counseling, trauma counseling and disaster mental health. Issues related to the assessment, diagnosis and treatment of clients affected by crises, trauma and disasters will be thoroughly addressed. Prerequisites: CNSL 5350 and CNSL 5353.

CNSL 5323. Ethical Consultation and Supervision in Counseling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will provide an introduction to counseling services in private practice, community centers and helping agencies, and schools and universities. Students will learn how to open a private practice, be consultants, clinical directors, and administrators. Overview of leadership theory and skills, consultation models and process, program evaluation, methods, and structure, and ethical, legal, and professional issues, the availability of funding sources and community resources. Students develop a personal model of consultation and apply their knowledge and skills to case studies and real-life examples. Prerequisites: CPSY 5350 and CPSY 5353.

CNSL 5325. Building, Marketing, and Managing a Private Practice. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Students will learn how to build, market, and manage a thriving private practice. Students will understand how to design a business plan, finances, building quarterly market plans, client record keeping, and other important details of running a successful private practice. Prerequisites: CNSL 5304, CNSL 5311, CNSL 5350, CNSL 5351, CNSL 5353, and CNSL 5354.

CNSL 5326. Sandtray Therapy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides advanced masters students with knowledge of appropriate uses of humanistic sandtray therapy with a variety of populations. Students will learn how to use therapeutic interventions in the processing phase of sandtray that are designed to enhance client growth and awareness. Humanistic interventions and techniques will be demonstrated and practiced in class so that students may learn experientially how to utilize these interventions in sandtray therapy. Students also will engage in experiential activities designed to enhance their own growth and development. Prerequisite: CNSL 5350, CNSL 5353, CNSL 5357.

CNSL 5332. Psychopharmacology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The understanding of the basic neurobiology of psychopathology and how psychotropic medications treat such conditions is the foundation of this class. An emphasis is placed on the role of the counselor as a member of a treatment team who helps facilitate client treatment compliance and monitors the efficacy and side effect manifestations of psychotropic treatment, while helping to integrate that treatment with other non-pharmacological modalities. The course will include an overview of psychopharmacological medications, their basic classification, indications, contraindications, and side-effects will be provided. One goal of this course is to introduce the students to the basic terminology and models of pharmacokinetics as they relate to clinical mental health counseling and pharmacological treatment. A tertiary aim of the course will be to discuss the ethical role of the mental health counselor who is a part of the mental health care team in pharmacotherapy. Prerequisites: CNSL 5350, CNSL 5353, and CNSL 5358.

CNSL 5333. Advanced Studies in Crisis, Trauma, and Mental Health. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course addresses the foundations, contextual dimensions, and advanced knowledge base for counselors to effectively treat trauma clients in various counseling environments. Instruction will focus on the theoretical concepts and symptoms of PTSD, compassion fatigue and vicarious traumatization in clients, practitioners, first responders and in their role as trauma therapists. Students will learn current evidence-based strategies for treatment of trauma, compassion fatigue, and vicarious traumatization. Students will examine the principles of affect regulation, how humans regulate their emotions, by drawing on theories of attachment and interpersonal neurobiology. Characteristics of attachment security are explored, including how complex trauma and disrupted attachment may lead to difficulty in personality organization, compulsive behaviors, and relationship issues. Prerequisite: CNSL 5350, CNSL 5353, and CNSL 5313.

CNSL 5334. Advanced Sandtray Therapy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides advanced masters students with experiential opportunities to continue to develop sandtray therapy skills that provide older children, adolescents, and adults with a developmentally appropriate approach to psychotherapy. Students also will engage in experiential activities designed to enhance their own growth and development. In addition, students will gain exposure to multiple differing theoretical approaches to sand therapy and will learn basic applications of those theories. Prerequisite: CNSL 5350, CNSL 5353, and CNSL 5326.

CNSL 5335. Spirituality in Counseling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is an experiential and didactic investigation of clients' spiritual dimension as persons, and of methods of assessment of and intervention regarding spiritual and religious issues in counseling and psychotherapy. This course provides opportunities for personal and professional development for counselors in training who seek to intentionally deepen their knowledge and experience of their own spiritual beliefs and values. In addition, students will increase their knowledge of others' spiritual and religious experiences and practices and learn how to integrate spirituality and religion into the practice of counseling. Prerequisite: CNSL 5350, CNSL 5353, and CNSL 5311.

CNSL 5336. Counseling Immigrant and Refugee Clients. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course offers a foundational introduction to clinical work with immigrant and refugee clients. The course will provide an overview of the experiences immigrant and refugee clients navigate when resettling in the United States including policy, legal hurdles, and social concerns. Additionally, the course will take a trauma informed lens in understanding clinical needs of this population and how immigrant and refugee needs differ from one another. Students will learn about theoretical models and interventions for clinical approach with clients. Prerequisite: CNSL 5350, CNSL 5353, and CNSL 5311.

CNSL 5337. Disability Culture, Society, and the Individual. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to enhance student awareness, knowledge, and skills to counsel people with disabilities (PWD). Social and cultural contexts of disability are explored on both micro and macro levels. Topics covered include the history of the Disability Rights Movement and ableism, models of disability, disability-affirming counseling skills and policies, accessibility, and accommodations. The intersection of disability with cultural identities are integrated throughout the course. Prerequisite: CNSL 5350, CNSL 5353, and CNSL 5311.

CNSL 5338. Non-Suicidal Self-Injury (NSSI): Identification and Treatment. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides advanced masters students with knowledge of appropriate use of conceptualization and treatment skills with individuals who employ self-injury as a means of self-regulation. Students will learn conceptualization skills and therapeutic interventions facilitative in working with non-suicidal self-injurious behavior. Students also will engage in online reading assignments and discussion that will facilitate learning. Prerequisite: CNSL 5350, CNSL 5353, and CNSL 5313.

CNSL 5350. Foundations of Counseling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines theories and concepts with emphasis on counseling skills, as well as historical, philosophical, ethical, legal, multicultural exploration and professional issues. The course provides an overview of counseling services commonly found in a variety of settings. It includes individual and group counseling, assessment, career planning, referral, and consultation. All applicants are classified as Pre-CMHC or PMHC students until they pass the first-semester review. The first-semester review aims to discuss performance in terms of professionalism, competency with beginning counseling skills, social and emotional maturity, integrity, and ethical standards. Students must earn a "B" or better grade to receive further consideration to continue in the program. Students will receive an email about their admission status after submission their final grades. The course is taken concurrently with CNSL 5353 in the first semester of enrollment. For further details, reference the TSU Graduate Counseling Program Handbook. Prerequisite: Taken first semester concurrently with CNSL 5353.

CNSL 5351. Career Counseling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is an in-depth study of career counseling that focuses on occupational, educational, and personal/social issues for general and special populations. The course includes examination of theoretical bases for career counseling and a study of organization and delivery of information through individual and group activities. All ethically related concerns are addressed. Students will be required to purchase occupational and educational information materials. Corequisites: CNSL 5350 and CNSL 5353.

CNSL 5352. Seminar in School Counseling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is an in-depth study of a comprehensive school counseling and guidance program. The course will address the theoretical foundation, knowledge, and skills to prepare the student to implement a counseling and guidance program in an educational (K-12) setting. As the foundation course for those planning to enter school counseling, this course covers organization, planning, management, and evaluation of comprehensive school counseling programs; appropriate roles and functions of school counselors at various school levels, coordination of professional services; and professional issues such as ethics and associations as they specifically relate to school counseling. This course is required of all students seeking master's degrees with the school counseling focus and of all students seeking school counselor certification in Texas. Prerequisites: CNSL 5350 and CNSL 5353.

CNSL 5353. Counseling Theories and Applications. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course surveys and investigates counseling theories with an emphasis on how theories influence practice. There is a special emphasis is on applications to various population. The course includes role-plays and other experiential methods. Students will participate in recording a counseling session to be critiqued. All students attend mandatory personal counseling with a community counselor during the course. Related ethical and legal concerns are discussed.of enrollment. Prerequisite: Taken first semester concurrently with CNSL 5350.

CNSL 5354. Group Procedures for Counselors. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is an introduction to group therapy and group procedures with an emphasis on developing group counseling skills to work with children, adolescents, adults, and special populations. The course covers various types of groups, an understanding of group dynamics and development, and related ethical and legal concerns. Students will participate in supervised group counseling experiences. Using relevant literature, multimedia resources, and a scholar-practitioner model, students develop an understanding of culturally and contextually relevant group practice, group leaders' roles and responsibilities, the relevance and purpose of group work, and strategies for group utilization to foster social change. Students also participate in a group experience in their class. In addition, leadership styles, techniques, and roles are explored. Prerequisites: CNSL 5350 and CNSL 5353.

CNSL 5356. Introduction to Family Counseling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is an overview of the theoretical concepts and intervention strategies unique to family, systems, and relational therapies. The course includes the study of family dynamics, family development, relationships, and the resolution of family concerns. Ethical and legal considerations are included. Prerequisites: CNSL 5350 and CNSL 5353.

CNSL 5357. Pre-Practicum. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to introduce counseling students to basic interviewing and counseling, to include theories and skills. The students will demonstrate an understanding of ethical behavior. The course includes application of multicultural competencies to case conceptualization. The course includes self-care strategies for the counseling student. The course addresses professional issues relevant to the practice of Clinical Mental Health Counseling. Students must make a grade of "B" or better. Prerequisites: CNSL 5350, CNSL 5351, CNSL 5353, CNSL 5354, and CNSL 5381.

CNSL 5358. Diagnosis and Treatment Planning. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is an overview of psychopathology that includes the history of abnormal behavior and an in-depth study of the specific diagnostic psychological disorders. Emphasis in the course will be on classification systems currently used in clinical settings and treatment alternatives from a counseling perspective. Prerequisites: CNSL 5350 and CNSL 5353.

CNSL 5359. Evidence Based Counseling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to provide students with both a knowledge/evidence base for the foundations of counseling and practical skills that will prepare them to see clients in their field work. Evidence is presented that the therapeutic alliance is, across all approaches to therapy, the strongest correlate of successful outcome. Students acquire skills in building a personal bond, providing deep empathy, promoting a collaborative atmosphere in therapy, and empowering clients to solve their own problems. Students are also encouraged to explore their own personal impact in developing a therapeutic alliance. Prerequisites: CNSL 5350, CNSL 5353, and CNSL 5358.

CNSL 5370. Expressive Arts in Counseling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to give counseling students an overview of expressive forms of counseling. Students will be able to gain further knowledge of creative approaches to counseling while also getting an opportunity to experience differing techniques. Additionally this course combines didactic and experiential learning. Discussion, role-play, lectures, small-group experiences, films, and demonstration are some possible methods that may be utilized. Prerequisites: CNSL 5350 & CNSL 5353.

CNSL 5371. Couples Counseling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will provide students with knowledge and understanding of the principal theoretical frameworks, and the existing clinical approaches to counseling couples derived from the theoretical frameworks. The course will also expose students to a variety of clinical issues a counselor is most likely to encounter in clinical work with couples. Prerequisites: CNSL 5350 & CNSL 5353.

CNSL 5372. Interpersonal Neurobiology for Counseling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides a comprehensive treatment of interpersonal neurobiology and its applications to clinical mental health counseling. The course will discuss neuroanatomy, neurophysiology, mental health disorders, and counseling methods from an interpersonal neurobiological perspective. Prerequisites: CNSL 5350 & CNSL 5353.

CNSL 5373. Using Mindfulness in Counseling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is a detailed examination of mindfulness therapeutic techniques counselors use to help clients. Current trends in the counseling field will be examined and evidence-based research will be discussed throughout the course. Also, the course will cover different theoretical perspectives on mindfulness. The course includes a focus on the role of mindfulness helps clients and counselor achieve holistic wellness. Prerequisites: CNSL 5350 and CNSL 5353.

CNSL 5374. Counseling Grief and Loss. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Designed to provide a foundation for counseling practice in the area of grief and loss. The practice of grief counseling is based on an in-depth understanding of the various theories and models associated with grief and loss and the applications of those models. Major and minor types of losses will be explored as well as differing reactions across developmental stages. Self-exploration of personal experiences, responses, and reactions to grief and loss will be examined. Prerequisites: CNSL 5350 & CNSL 5353.

CNSL 5376. Advanced Play Therapy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The major focus of this course will involve experiential opportunities for the student counselor to develop play therapy skills that provide children with appropriate developmental materials and facilitate a safe relationship for the child to express feelings. Students will have the opportunity to demonstrate developmentally appropriate activities for individual children and for small groups. In addition, students will gain exposure to multiple differing theoretical approaches and will learn the basics in application of those theories. This course will provide 67.5 additional education hours of the required 150 for students pursuing the Registered Play Therapist credential. Prerequisites: CNSL 5350, 5353, 5358, and 5393.

CNSL 5377. Wilderness Counseling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will provide students with knowledge and understanding of the principal theoretical frameworks and existing clinical philosophies commonly used in wilderness and eco-counseling. The course will also expose students to a variety experiential learning opportunities including small group counseling, wilderness journaling, hiking, forest bathing, meditation, and team building activities.

CNSL 5378. Addictions and Family Systems. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course offers a foundational introduction to clinical work in addictions and family systems. This course merges the conceptualization and practice of two areas, family and addictions. The course will explore the impact both areas have on each other and present an integrated view of family systems and the process of addiction recovery.

CNSL 5381. Assessment in Counseling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to provide an introduction to the principles, concepts, methods, and applications of assessing human experience and behavior for counseling purposes. Topics included for study in this course include the history and philosophy behind measurement and assessment in counseling, statistical concepts, and common assessment formats for measuring constructs such as personality, pathology, achievement and aptitude, and career interests. The required assignments focus on the themes of assessment critique, administration and interpretation of assessment results, and incorporating assessment results into work with clients and students. Students must make a grade of "B" or better. Prerequisites: CNSL 5350 and CNSL 5353.

CNSL 5382. Behavior Management and Counseling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is an examination of the major approaches and techniques utilized in behavior counseling and behavior management, including the principles of applied behavioral analysis. The course explores formal treatment planning, application, and evaluation of counseling for the management of specific emotional an mental health disorders. Prerequisites: CNSL 5350, CNSL 5353, and CNSL 5358.

CNSL 5383. Counseling Veteran, Law Enforcement, and First Responders. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Description: This course is an overview of moral injury and the effects when working with veterans, law enforcement, and first responders. An overview of trauma informed guilt reduction therapy in relationship to developing a working knowledge of military and first responder culture and how to integrate trauma informed guilt reduction therapy to address trauma within this closed culture. Prerequisite: CNSL 5358.

CNSL 5390. Selected Topics in Counseling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An examination of different topics each semester with a focus on contemporary issues in counseling. This course may be repeated for credit as the topic changes.

CNSL 5391. Ethical Foundations of Counseling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is an exploration of the ethical principles of counselors and related codes of ethics. The course covers models or ethical decision-making and how to apply to counseling practice. Students will learn about the importance of self-care and application. The course explores the importance of multicultural considerations and implications for society. Students will learn ethical obligations to advocate for clients. The course covers ethical standards of professional organizations and credentialing bodies. Prerequisites: CNSL 5350 and CNSL 5353.

CNSL 5392. Counseling Children and Adolescents. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is intended to provide a comprehensive study of therapeutic approaches and techniques for children and adolescents and is designed to develop students' knowledge and skills in the theory and practice of working with children. It prepares counselors to address the specific needs of children and adolescents, with emphasis on developmental needs, specific therapeutic interventions, and common emotional issues. Group and individual counseling techniques and treatment planning are included. Contemporary issues and interventions addressed include: typical developmental problems, creative interventions, crisis management, exceptional children, parenting skills, multicultural considerations, and ethical concerns. Prerequisite: CNSL 5350, CNSL 5353.

CNSL 5393. Play Therapy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides an overview of the essential elements and principles of play therapy, including history, theories, modalities, techniques, applications, and skills. Further, an experiential component focuses on basic play therapy skill development within the context of ethical practice. The course meets Association for Play Therapy requirements providing 67.5 Continuing Education (CE) hours towards the mandatory 150 required for RPT certification. Prerequisites: CNSL 5350, and CNSL 5353.

CNSL 5394. Behavioral Addictions and Substance Abuse. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is intended to provide students with information regarding behavioral addictions (gambling, sex, Internet, video gaming, etc.), substance abuse, and co-occurring disorders. Information regarding the etiology, recognition, assessment, diagnosis, treatment, and impact of addictions will be addressed. The influence of addictions throughout the lifespan will also be examined. An experiential component is included as well. Ethical and legal concerns are covered. Prerequisites: CNSL 5350 and CNSL 5353.

CNSL 5395. Internship in Counseling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Supervised professional activities in guidance and counseling. Major emphasis is placed on the student's involvement in successful practices at the educational level of interest. Students must have met all academic and professional standards of practice before placement. The field experience will consist of a minimum of 150 clock hours. Liability insurance is required. An application must be submitted by the published due date in the semester prior to field placement and approved by the practicum/internship director. Prerequisites: 3.0 or greater GPA and CPSY 5357, or approval of the department head.

CNSL 5396. Internship in Counseling II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Supervised professional activities in counseling at a field placement. Students must have met all academic and professional standards of practice before placement. The field experience will consist of a minimum of 160 clock hours. Liability insurance is required. A complete application must be submitted by the published due date in the semester prior to field placement and approved by the director. This course is repeatable up to two times for a maximum number of 6 credit hours. Prerequisites: CNSL 5395 and approval of program director.

CNSL 5397. Practicum. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides an overview of the basic counseling skills used by the professional counselor in working with children, adolescents, and adults. The course includes a laboratory experience in which the student is trained in the application of counseling relationship-building and working-stage skills via role-play activities with other students in the class and field placements as available. Integration of theory and practice is imperative in counselor training. This course is repeatable up to two times but a maximum number of 3 credit hours will be awarded. This course will be graded using a pass/fail grading system. Prerequisites: 3.0 GPA or greater, grade of "B" or better in CNSL 5357 and departmental permission received via application acceptance.

CNSL 5398. Internship: School Mental Health Counseling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Primary interest is on integration of process, conceptual, professional, and personal skills. Provides extensive supervised experience in a setting closely aligned with student's chosen program. Taken as a two-semester sequence of two, three credit-hour courses. Each semester requires twenty weekly hours (300 total in each) of field experience. This course is repeatable up to four times, but a maximum of 6 credit hours will be awarded. This course will be graded using a pass/fail grading system. Prerequisite: Grade of "B" or better in CNSL 5350, CNSL 5351, CNSL 5353, CNSL 5354, CNSL 5381, and CNSL 5357. Grade of pass in CNSL 5397. Departmental permission received via clinical placement application acceptance.

CNSL 5399. Internship. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Primary interest is on integration of process, conceptual, professional, and personal skills. Provides extensive supervised experience in a setting closely aligned with student's chosen program. Taken as a two-semester sequence of two, three credit-hour courses. Each semester requires twenty weekly hours (300 total in each) of field experience. This course is repeatable up to four times, but a maximum of 6 credit hours will be awarded. This course will be graded using a pass/fail grading system. Prerequisites: CNSL 5350, CNSL 5351, CNSL 5353, CNSL 5354, CNSL 5381, grade of "B" or better in CNSL 5357 and CNSL 5397 and departmental permission received via application acceptance.

CNSL 6086. Problems Course. 1-6 Credit Hours (Lecture: 1-6 Hours, Lab: 0 Hours).
Open to doctoral students in counseling who are independently capable of developing a problem in the area of counseling. Problems chosen by the student must be approved in advance by the instructor. Prerequisite: Admission to the PhD in Counseling.

CNSL 6090. Special Topics. 1-6 Credit Hours (Lecture: 1-6 Hours, Lab: 0 Hours).
Special Topics in Counseling. Prerequisite: Admission to the PhD in Counseling.

CNSL 6300. Advanced Theories of Counseling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines several major counseling theories that inform current counseling practice. Students will have an opportunity to compare, analyze, and evaluate the compatibility and effectiveness of counseling theories in practice, including evidence-based practices, and ethical and culturally relevant practice in multiple clinical settings. Students will demonstrate knowledge and application of major theories pertaining to the principles and practices of counseling to include the conceptualization of clients from multiple theoretical perspectives. A minimum grade of B is required to advance in the program. Prerequisite: Admission to the PhD in Counseling.

CNSL 6301. Advanced Multicultural and Social Justice Advocacy in Counseling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Multiculturalism and inclusive practices are ethical imperatives for professional counselors. This course provides advanced multicultural and social knowledge, skills, and awareness that will support students' roles as advocates for their clients and within systems of counselor education and beyond. Students will be exposed to theoretical movements in multiculturalism and explore their own values, beliefs, and cultural identities and make connections to how these aspects of their personhood influence their relationship and intervention with clients and students. A minimum grade of B is required to advance in the program. Prerequisites: Admission to the PhD in Counseling Program.

CNSL 6302. Theory and Process of Counselor Supervision. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Clinical supervision of counselors and counselors in training requires in-depth knowledge of major conceptual approaches, methods, and techniques; evaluation; and ethical and legal issues related to supervisory interactions and responsibilities. Students in this course are provided with the opportunity to develop their professional identity and learn the skills of a clinical supervisor. Throughout this course, students engage in experiential applications, discussions, and self-reflective assignments that focus on the strategies for working with supervisees representing various backgrounds and developmental and learning styles. After a critical analysis of the purpose of supervision, theoretical frameworks, and models of supervision, students develop and apply their own theory of supervision in a practice setting in which they each oversee a group of practicum students. Student's must obtain a B or better in this course. Prerequisite: Successful passing all prior courses required by the cohort with a minimal grade of B.

CNSL 6303. Advanced Ethics, Law, and Philosophy in Counseling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course introduces students to moral development and philosophical underpinnings of professional ethics. Legal, ethical, and best practice issues encountered by professional counselors will be examined, with an emphasis on issues encountered by counseling supervisors, advanced practitioners, and counselor educators. Students are expected to explore and adopt an ethical decision-making model. A minimum grade of B is required to advance in the program. Prerequisite: Successful passing of all prior courses required by cohort with minimal grade of B.

CNSL 6304. Leadership and Advocacy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Counselor educators have a responsibility to provide leadership and advocacy. Students have the opportunity to gain a thorough understanding of this responsibility as well as the prospect of enhancing their professional development plans by identifying specific goals for professional involvement and service, including advocacy for all community, clients, students, or profession. Students examine the processes of advocacy. They use contemporary research to analyze the current trends and issues of the profession. Students also identify how community, national, and international issues affect the counseling profession. Student must obtain a B or better in this course to advance in the program. Prerequisite: Successful passing of all prior courses required by the cohort with the minimal grade of B.

CNSL 6305. Instructional Theory in Counselor Education. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course prepares students to become competent teachers of counselor education through the examination of various adult learning methods to work effectively with different learning styles, cultural dynamics, and various populations. Topics covered are learning theories, retention of material, motivation, classroom instructional strategies and techniques, and assessment of learning from the core learning expectations. This course will provide an overview of the history and development of counselor education with an examination of the theoretical orientation and practice skills necessary to function effectively as a counselor educator. Students will examine their personal philosophy of teaching and learning and demonstrate the ability to design, deliver, and evaluate methods appropriate to course objectives. Student must obtain a B or better in this course to advance in the program. Prerequisite: Successful passing of all prior courses required by cohort with minimal grade of B.

CNSL 6306. Advanced Assessment in Counseling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Designed to provide counselors with a working knowledge of assessment principles and instruments used in school, clinical mental health, and research settings. This course will focus on the process of test selection, administration, scoring, and interpretation of intelligence testing, personality and behavioral assessment, and appraisal. Students will be required to perform a comprehensive assessment battery. A minimum grade of B is required to advance in the program. Prerequisites: Successful passing of all prior courses required by cohort with minimal grade of B.

CNSL 6308. Program Evaluation and Grant Writing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course focuses on the concepts and processes related to program evaluation and the steps in performing a program evaluation. Emphasis is on the application and demonstration of critical thinking skills related to analyzing and evaluating an array of programs. Students will also demonstrate the ability to write grant proposals appropriate for research, program enhancement, and/or program development. Students will engage in grant writing activities appropriate to their site and counseling goals. Student must obtain a B or better in this course to advance in the program. Prerequisite: Successful passing of all prior courses required by cohort with minimal grade of B.

CNSL 6309. Seminar in Rural Mental Health. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This is a specialized online course designed to address the unique needs of counseling rural communities and populations. Attention will be given to the uniqueness of rural counseling and communities, ethical considerations, working with existing educational and community entities, multicultural issues and challenges, and the various roles of the rural community counselor. This course will provide a special focus on the impact of substance abuse, addictions, and telehealth. Prerequisite: Admission to the PhD in Counseling.

CNSL 6333. Advanced Studies in Crisis, Trauma, and Mental Health. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course addresses the foundations, contextual dimensions, and advanced knowledge base for counselors to effectively treat trauma clients in various counseling environments. Instruction will focus on the theoretical concepts and symptoms of PTSD, compassion fatigue and vicarious traumatization in clients, practitioners, first responders and in their role as trauma therapists. Students will learn current evidence-based strategies for treatment of trauma, compassion fatigue, and vicarious traumatization. Students will examine the principles of affect regulation, how humans regulate their emotions, by drawing on theories of attachment and interpersonal neurobiology. Characteristics of attachment security are explored, including how complex trauma and disrupted attachment may lead to difficulty in personality organization, compulsive behaviors, and relationship issues. Additional readings and assignments (research project, course facilitation, or experiential activities) will be required for doctoral students. Prerequisite: Doctoral Standing.

CNSL 6334. Advanced Sandtray Therapy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides doctoral students with experiential opportunities to continue to develop sandtray therapy skills that provide older children, adolescents, and adults with a developmentally appropriate approach to psychotherapy. Students also will engage in experiential activities designed to enhance their own growth and development. In addition, students will gain exposure to multiple differing theoretical approaches to sand therapy and will learn basic applications of those theories. Additional readings and assignments (research project, course facilitation, or experiential activities) will be required for doctoral students. Prerequisite: Doctoral Standing.

CNSL 6335. Spirituality in Counseling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This doctoral level course is an experiential and didactic investigation of clients' spiritual dimension as persons, and of methods of assessment of and intervention regarding spiritual and religious issues in counseling and psychotherapy. This course provides opportunities for personal and professional development for counselors in training who seek to intentionally deepen their knowledge and experience of their own spiritual beliefs and values. In addition, students will increase their knowledge of others' spiritual and religious experiences and practices and learn how to integrate spirituality and religion into the practice of counseling. Additional readings and assignments (research project, course facilitation, or experiential activities) will be required for doctoral students.

CNSL 6336. Counseling Immigrant and Refugee Clients. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course offers a foundational introduction to clinical work with immigrant and refugee clients. The course will provide an overview of the experiences immigrant and refugee clients navigate when resettling in the United States including policy, legal hurdles, and social concerns. Additionally, the course will take a trauma informed lens in understanding clinical needs of this population and how immigrant and refugee needs differ from one another. Students will learn about theoretical models and interventions for clinical approach with clients. Additional readings and assignments (research project, course facilitation, or experiential activities) will be required for doctoral students. Prerequisite: Doctoral Standing.

CNSL 6337. Disability Culture, Society, and the Individual. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to enhance student awareness, knowledge, and skills to counsel people with disabilities (PWD). Social and cultural contexts of disability are explored on both micro and macro levels. Topics covered include the history of the Disability Rights Movement and ableism, models of disability, disability-affirming counseling skills and policies, accessibility and accommodations. The intersection of disability with varied cultural identities are integrated throughout the course. Additional readings and assignments (research project, course facilitation, or experiential activities) will be required for doctoral students. Prerequisite: Doctoral Standing.

CNSL 6338. Non-Suicidal Self Injury (NSSI): Identification and Treatment. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides doctoral students with knowledge of appropriate use of conceptualization and treatment skills with individuals who employ self-injury as a means of self-regulation. Students will learn conceptualization skills and therapeutic interventions facilitative in working with non-suicidal self-injurious behavior. Students also will engage in online reading assignments and discussion that will facilitate learning. Additional readings and assignments (research project, course facilitation, or experiential activities) will be required for doctoral students. Prerequisite: Doctoral Standing.

CNSL 6359. Evidence Based Counseling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to provide students with both a knowledge/evidence base for the foundations of counseling and practical skills that will prepare them to see clients in their field work. Evidence is presented that the therapeutic alliance is, across all approaches to therapy, the strongest correlate of successful outcome. Students acquire skills in building a personal bond, providing deep empathy, promoting a collaborative atmosphere in therapy, and empowering clients to solve their own problems. Students are also encouraged to explore their own personal impact in developing a therapeutic alliance. Additional readings and assignments (research project, course facilitation, or experiential activities) will be required for doctoral students. Prerequisite: Doctoral Standing.

CNSL 6370. Expressive Arts in Counseling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to give doctoral level counseling students an overview of expressive forms of counseling. Students will be able to gain further knowledge of creative approaches to counseling while also getting an opportunity to experience differing techniques. Additionally this course combines didactic and experiential learning. Discussion, role-play, lectures, small-group experiences, films, and demonstration are some possible methods that may be utilized. Each class member will also be required to participate in guided activities during class. Additional readings and assignments (research project, course facilitation, or experiential activities) will be required for doctoral students. Prerequisite: Doctoral Standing.

CNSL 6372. Interpersonal Neurobiology for Counseling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides a comprehensive treatment of neuroscience and its applications to clinical mental health counseling. Students will learn fundamental neuroanatomy and neurophysiology, providing a solid basis for understanding interpersonal neurobiology. The course will also review current research about neurobiology and its explanatory models for mental health diagnoses. The course will also provide a review of counseling approaches and strategies grounded in interpersonal neurobiology, enhancing their ability to provide treatments informed by current neurobiology research. Additional readings and assignments (research project, course facilitation, or experiential activities) will be required for doctoral students. Prerequisite: Doctoral Standing.

CNSL 6373. Using Mindfulness in Counseling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is a detailed examination of mindfulness therapeutic techniques counselors use to help clients. Current trends in the counseling field will be examined and evidence-based research will be discussed throughout the course. Different skills and techniques will be practiced each class to further understanding and gain skills to utilize in the counseling field. Also, the course will cover different theoretical perspectives on mindfulness. Students will research different theoretical perspectives and they will have the opportunity to present their findings to the class. The course includes a focus on the role of mindfulness helps clients and counselor achieve holistic wellness. Additional readings and assignments (research project, course facilitation, or experiential activities) will be required for doctoral students. Prerequisite: Doctoral Standing.

CNSL 6374. Counseling Grief and Loss. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Designed to provide a foundation for counseling practice in the area of grief and loss. The practice of grief counseling is based on an in-depth understanding of the various theories and models associated with grief and loss and the applications of those models. Major and minor types of losses will be explored as well as differing reactions across developmental stages. Self-exploration of personal experiences, responses, and reactions to grief and loss will be examined. In addition, death-related transpersonal phenomena and ethical issues of palliative care will be explored. This class is experiential in nature and challenges traditional myths of bereavement. Additional readings and assignments (research project, course facilitation, or experiential activities) will be required for doctoral students. Prerequisite: Doctoral Standing.

CNSL 6376. Advanced Play Therapy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The major focus of this doctoral level course will involve experiential opportunities for the student counselor to develop play therapy skills that provide children with appropriate developmental materials and facilitate a safe relationship for the child to express feelings. Students will have the opportunity to demonstrate developmentally appropriate activities for individual children and for small groups. In addition, students will gain exposure to multiple differing theoretical approaches and will learn the basics in application of those theories. This course will provide 67.5 additional education hours of the required 150 for students pursuing the Registered Play Therapist credential. Additional readings and assignments (research project, course facilitation, or experiential activities) will be required for doctoral students. Prerequisite: Doctoral Standing.

CNSL 6377. Wilderness Counseling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will provide students with knowledge and understanding of the principal theoretical frameworks and existing clinical philosophies commonly used in wilderness and eco-counseling. The course will also expose students to a variety experiential learning opportunities including small group counseling, wilderness journaling, hiking, forest bathing, meditation, and team building activities. Additional readings and assignments (research project, course facilitation, or experiential activities) will be required for doctoral students. Prerequisite: Doctoral Standing.

CNSL 6378. Advanced Practicum in Counseling II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The second semester of an advanced supervised practicum in counseling will enable doctoral-level students to develop and/or refine advanced counseling skills and conceptually link counselor practice and supervision. The doctoral practicum focuses on additional supervised clinical counseling experience beyond the supervised experience completed in the student's master's degree program. Students are required to participate in a supervised doctoral-level practicum of a minimum of 100 hours in counseling, of which 40 hours must be in direct service with clients. The nature of the doctoral-level practicum experience is to be determined in consultation with program faculty and/or a doctoral committee. Students will participate in weekly group supervision with a faculty member and other practicum students. A minimum grade of B in this course is required to advance in the program. Prerequisite: Successful passing of all prior courses required by cohort with minimal grade of B.

CNSL 6379. Doctoral Internship I: Counseling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The first semester of a minimum two semester doctoral internship in counseling will enable doctoral-level students to continue to develop and/or refine advanced counseling skills and conceptually link counselor practice and supervision. Students are required to participate in a supervised doctoral-level practicum of a minimum of 300 hours in counseling, of which 120 hours must be in direct service with clients. The nature of the doctoral-level internship experience is to be determined in consultation with program faculty and/or a doctoral committee. Students will participate in weekly group supervision with a faculty member and other internship students. A minimum grade of B is required in this course to advance in the program. Prerequisite: Admission to the PhD in Counseling Program, a minimum grade of B in CNSL 6391 and CNSL 6378 Advanced Practicum in Counseling II.

CNSL 6380. Doctoral Internship II: Counseling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The second semester of a minimum two semester doctoral internship in counseling will enable doctoral-level students to continue to develop and/or refine advanced counseling skills and conceptually link counselor practice and supervision. Students are required to participate in a supervised doctoral-level practicum of a minimum of 300 hours in counseling, of which 120 hours must be in direct service with clients. The nature of the doctoral-level internship experience is to be determined in consultation with program faculty and/or a doctoral committee. Students will participate in weekly group supervision with a faculty member and other internship students. A minimum grade of B is required in this course to advance in the program. Prerequisite: Admission to the PhD in Counseling Program, a minimum grade of B in CNSL 6391, CNSL 6378 Advanced Practicum in Counseling II, and CNSL 6379 Doctoral Internship I: Counseling.

CNSL 6381. Doctoral Internship III: Clinical Supervision. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Allows opportunities for experiential learning and skill development in an applied supervisory setting and enables students to synthesize a personal approach to counselor supervision that integrates knowledge based on theory and experience. The Doctoral Internship in Clinical Supervision allows students to apply supervision theories and techniques they have learned in the introductory counseling supervision course, CNSL 6302, while under the supervision of a faculty member. Students are required to supervise master's-level counseling students. The nature of the doctoral-level internship in supervision experience is to be determined in consultation with program faculty and/or a doctoral committee. Students will participate in weekly group supervision of supervision with a faculty member and other internship students. A minimum grade of B is required in this course to advance in the program. Prerequisite: Admission to the PhD in Counseling Program and a minimum grade of B in CNSL 6302 and CNSL 6392.

CNSL 6382. Doctoral Internship IV: Teaching. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Reviews and offers doctoral-level students the opportunity to examine and practice the various roles of teaching in counseling under direct supervision. The doctoral-level teaching internship will consist of students engaging in teaching activities, which include but are not limited to teaching and/or co-teaching undergraduate and/or master's-level students. The nature of the doctoral-level internship in teaching experience is to be determined in consultation with program faculty and/or a doctoral committee. Students will participate in weekly group supervision of teaching with a faculty member and other internship students. A minimum grade of B is required in this course to advance in the program. Prerequisite: Admission to the PhD in Counseling Program and a minimum grade of B in CNSL 6305.

CNSL 6383. Counseling Veterans, Law Enforcement, and First Responders. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is an overview of moral injury and the effects when working with veterans, law enforcement, and first responders. An overview of trauma informed guilt reduction therapy in relationship to developing a working knowledge of military and first responder culture and how to integrate trauma informed guilt reduction therapy to address trauma within this closed culture. Additional readings and assignments (research project, course facilitation, or experiential activities) will be required for doctoral students. Prerequisite: Doctoral Standing.

CNSL 6388. Dissertation I. 3 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
This course is a Counseling doctoral degree requirement focused on preparing students to inform professional practice by generating new knowledge for the counseling profession through dissertation research or a comparable research project focusing on areas relevant to counseling practice, counselor education, and/or supervision. Further, the course requires students to work individually with their doctoral committee to determine the specific requirements for completing dissertation research or comparable research project including a dissertation/project proposal and defense. Students may register for this course after successfully completing oral and written comprehensive exams and with the permission of their dissertation committee. The student's doctoral dissertation/project committee chair (or intended doctoral dissertation/project committee chair) will oversee the work of the student. Prerequisite: CNSL 6302 and CNSL 6184.

CNSL 6389. Dissertation II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is a Counseling doctoral degree requirement focused on preparing students to inform professional practice by generating new knowledge for the counseling profession through dissertation research or a comparable project focusing on areas relevant to counseling practice, counselor education, and/or supervision. Further, the course requires students to work individually with their doctoral committee to determine the specific requirements for completing dissertation research or comparable research project including a dissertation/project proposal and defense. Students may register for this course after successfully completing oral and written comprehensive exams and with the permission of their dissertation committee. The student's doctoral dissertation/project committee chair (or intended doctoral dissertation/project committee chair) will oversee the work of the student. The student in collaboration with the supervising faculty member will develop a concrete plan of work related to the student's intended dissertation/research project. Prerequisite: CNSL 6388 minimum grade of B.

CNSL 6390. Dissertation III. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is a Counseling doctoral degree requirement focused on preparing students to inform professional practice by generating new knowledge for the counseling profession through dissertation research or a comparable research project focusing on areas relevant to counseling practice, counselor education, and/or supervision. Further, the course requires students to work individually with their doctoral committee to determine the specific requirements for completing dissertation research or comparable research project including a dissertation/project proposal and defense. Students may register for this course after successfully completing oral and written comprehensive exams and with the permission of their dissertation committee. The student's doctoral dissertation/project committee chair (or intended doctoral dissertation/project committee chair) will oversee the work of the student. The student in collaboration with the supervising faculty member will develop a concrete plan of work related to the student's intended dissertation/research project. Prerequisite: CNSL 6388 minimum grade of a B.

CNSL 6391. Advanced Practicum in Counseling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This advanced supervised practicum in counseling will enable doctoral-level students to develop and/or refine advanced counseling skills and conceptually link counselor practice and supervision. The doctoral practicum focuses on additional supervised clinical counseling experience beyond the supervised experience completed in the student's master's degree program. Students are required to participate in a supervised doctoral-level practicum of a minimum of 100 hours in counseling, of which 40 hours must be in direct service with clients. The nature of the doctoral-level practicum experience is to be determined in consultation with program faculty and/or a doctoral committee. Students will participate in weekly group supervision with a faculty member and other practicum students. Prerequisite: Admission to the PhD in Counseling.

CNSL 6392. Practicum in Counselor Supervision. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The class allows opportunities for experiential learning and skill development in an applied supervisory setting and enables students to synthesize a personal approach to counselor supervision that integrates theory and practice. This course allows students to put into practice supervision theories and techniques they have learned in the introductory counseling supervision course, CNSL 6302, while under the supervision of a faculty member. Prerequisites: Admission to the PhD in Counseling Program, CNSL 6302 with a minimum grade of B. A minimum grade of B is required to advance in the program.

CNSL 6393. Play Therapy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides an overview of the essential elements and principles of play therapy, including history, theories, modalities, techniques, applications, and skills. Further, an experiential component focuses on basic play therapy skill development within the context of ethical practice. The course meets Association for Play Therapy requirements providing 67.5 Continuing Education (CE) hours towards the mandatory 150 required for RPT certification. Additional readings and assignments (research project, course facilitation, or experiential activities) will be required for doctoral students. Prerequisite: Doctoral Standing.

CNSL 6394. Advanced Research Methods in Counseling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduces students to advanced research methodology in counseling and counselor education. Topics of emphasis include quantitative research design, univariate analyses, survey and instrument design, approaches to interpretation of data, and qualitative research design. Prerequisites: Admission to the PhD in Counseling Program. A minimum grade of B is required to advance in the program.

CNSL 6395. Multivariate Statistics in Counseling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Provides students with an exposure to more advanced methods of data analysis and research approaches, with an emphasis on the completion of a research project proposal using multivariate methods. Topics include multivariate data analysis; quantitative data analyses, including MANOVAs; discriminate function analysis; hierarchical multiple regression; and exploratory factor analysis. Students will gain experience in using statistical software packages to conduct analyses with multivariate datasets. Prerequisites: Admission to the PhD in Counseling Program. CNSL 6394 Advanced Research Methods in Counseling. A minimum grade of B is required to advance in the program.

CNSL 6396. Research in Counseling: Proposal Development. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Provides guidance for doctoral candidates in the theory and practice of dissertation development, particularly Chapters 1-3 of the dissertation, which will be completed prior to the conclusion of this class. Students will develop a comprehensive literature review, research questions or hypotheses, research design and procedures, and proposal of the problem. Students will review research ethics, including IRB and human subjects training Prerequisites: Admission to the PhD in Counseling Program. CNSL 6394 Advanced Research Methods in Counseling; CNSL 6397 Quantitative Research Methods or CNSL 6398 Qualitative Research Methods. A minimum grade of B is required to advance in the program.

CNSL 6397. Quantitative Research Methods. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines advanced quantitative research models and methods of instrument design such as experimental and quasi-experimental designs to include application of advanced quantitative research skills, evaluation of research proposals from human subjects/institutional review board reviews, application of professional writing for journal and newsletter publication, and appropriate conference proposal procedures. Students will demonstrate knowledge through application of quantitative research questions appropriate for professional research and be introduced to writing for publication. This course will also address ethical issues involved in research design, measurement, implementation, and generalization of findings. Prerequisite: Admission to the PhD in Counseling.

CNSL 6398. Qualitative Research Methods. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines qualitative research design and the development of advanced level qualitative research skills. Explores and contrasts philosophical assumptions of qualitative and quantitative research. Areas of emphasis include methodologies, such as grounded theory, ethnographic, and phenomenological and other emergent research practice and processes. Students will develop competencies in qualitative data collection, analysis, and oral and written data presentation. Various methodologies and approaches to qualitative research are reviewed. Prerequisite: Admission to the PhD in Counseling.

CNSL 6399. Research & Publication. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines advanced topics and controversies in qualitative and quantitative counseling research; this integration of theoretical with applied counseling material augments the department's standard doctoral research offerings. Students will engage in qualitative and quantitative research methods and complete a journal manuscript and conference proposal. Prerequisites: CNSL 6301 and CNSL 6398.

CNSL 7192. Dissertation Continuation. 1 Credit Hour (Lecture: 1 Hour, Lab: 0 Hours).
This course is a Counseling doctoral degree requirement for students who have not successfully defended their dissertation after completing CNSL 6319 - Dissertation IV. This course allows students to continue and complete dissertations with the assistance of the dissertation committee. Prerequisites: CNSL 7388 minimum grade of B and CNSL 7389 minimum grade of a B and CNSL 7390 minimum grade of a B and CNSL 7391 minimum grade of a B.

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Master of Science in Applied Psychology

The Master of Science in Applied Psychology offers an intellectually rigorous program that will prepare students for careers in a wide variety of areas related to psychological science. Specifically, the program prepares graduates for careers that require a unique combination of skills and knowledge regarding human behavior, scientific inquiry and critical thinking, research methods, statistical analysis and interpretation, ethics and social responsibility, communication, and teamwork. Students can further develop these skills and knowledge by completing a research-based thesis or by completing a project in an applied setting. One unique facet of our program is the ability to receive specific training in the teaching of psychology, which will be very beneficial for any student who may want to teach psychology at the community college level upon graduation.

All students in the program complete courses in statistics and research methods, theories of learning, and history and systems of psychology. Remaining courses can be chosen from a variety of electives within the psychological and behavioral sciences. Upon completion of this program, students will have developed the research and writing skills to further their education at the doctoral level or to pursue a career in applied research, data science, training, development, or other areas.

There are four tracks in the M.S. in Applied Psychology: A general concentration, a research concentration (with thesis), a teaching concentration, and an applied project concentration. A bachelor's degree in psychology or a closely related field is required.

Master of Science in Applied Psychology Program Requirements

PSYC 5300	Behavioral Statistics	3
PSYC 5301	Research Methods	3
PSYC 5303	Learning and Cognition	3
PSYC 5320	History and Systems of Psychological Science	3
Select 2 of the following:		6
PSYC 5302	Social Psychological Processes	
PSYC 5304	Human Development	
PSYC 5321	Evolutionary Psychology	
PSYC 5379	Human Language and Discourse Processing	
Total Hours		**18**

Applied Project

PSYC 5048	Applied Project Capstone	1-6
Select 2 of the following:		6
PSYC 5315	Physiological Psychology	
PSYC 5316	Advanced Quantitative Methods and Experimental Design	
PSYC 5322	Psychometrics	
PSYC 5340	Psychopathology and Assessment of Children	
PSYC 5361	Teaching of Psychology	
PSYC 5381	Assessment and Evaluation Fundamentals	
PSYC 5090	Special Topics	
Total Hours		**12**

General

Select 4 of the following:		12
PSYC 5315	Physiological Psychology	
PSYC 5316	Advanced Quantitative Methods and Experimental Design	
PSYC 5322	Psychometrics	
PSYC 5340	Psychopathology and Assessment of Children	
PSYC 5361	Teaching of Psychology	
PSYC 5381	Assessment and Evaluation Fundamentals	
PSYC 5090	Special Topics	
Total Hours		**12**

Research

PSYC 5316	Advanced Quantitative Methods and Experimental Design	3
PSYC 5088	Thesis	1-6
Select 1 of the following:		3
PSYC 5315	Physiological Psychology	
PSYC 5322	Psychometrics	
PSYC 5340	Psychopathology and Assessment of Children	
PSYC 5361	Teaching of Psychology	
PSYC 5381	Assessment and Evaluation Fundamentals	
PSYC 5090	Special Topics	
Total Hours		**12**

Teaching Option

PSYC 5361	Teaching of Psychology	3
PSYC 5362	Teaching of Psychology Practicum	3
Select 2 of the following:		6
PSYC 5315	Physiological Psychology	
PSYC 5316	Advanced Quantitative Methods and Experimental Design	
PSYC 5322	Psychometrics	
PSYC 5340	Psychopathology and Assessment of Children	
PSYC 5381	Assessment and Evaluation Fundamentals	
PSYC 5090	Special Topics	
Total Hours		**12**

Specialist in School Psychology

The Specialist in School Psychology (SSP) program at Tarleton State University offers a comprehensive and rigorous curriculum designed to prepare students for careers as Licensed School Psychologists (LSSPs) in Texas schools. This 63-credit hour program integrates theoretical knowledge with practical skills through intensive coursework, supervised field experiences, and a culminating internship.

The program emphasizes evidence-based practices in assessment, intervention, consultation, and counseling within educational settings. Students develop expertise in identifying and addressing academic, behavioral, and social-emotional concerns of diverse student populations. Core coursework includes psychological foundations, psychoeducational assessment, academic and behavioral interventions, consultation, counseling techniques, and research methodology.

A distinctive feature of our program is the emphasis on rural school psychology practice, preparing graduates to meet the unique needs of students in rural and underserved communities. Throughout the program, students complete a minimum of 1,800 hours of supervised fieldwork, including a 600-hour practicum and a 1,200-hour internship in school settings, ensuring they graduate with extensive practical experience.

Upon successful completion of the program, graduates are eligible to apply for the LSP credential through the Texas State Board of Examiners of Psychologists and the Nationally Certified School Psychologist (NCSP) credential through the National Association of School Psychologists. Our program maintains high standards aligned with NASP training guidelines and prepares ethical, culturally responsive practitioners dedicated to improving outcomes for all students. A bachelor's degree in psychology or a closely related field is required.

Specialist in School Psychology Program Requirements

PSYC 5300	Behavioral Statistics	3
PSYC 5301	Research Methods	3
PSYC 5303	Learning and Cognition	3
PSYC 5304	Human Development	3
PSYC 5315	Physiological Psychology	3
PSYC 5340	Psychopathology and Assessment of Children	3
PSYC 6330	Topics in Social Psychology	3
PSYC 6350	Professional Seminar in School Psychology	3
PSYC 6351	Legal, Ethical, and Multicultural Issues in School Psychology	3
PSYC 6352	Theory and Practice of Counseling with Children and Adolescents	3
PSYC 6353	Evidence-Based Intervention with Children and Adolescents	3
PSYC 6354	Consultation and Supervision in Schools and Psychological Practice	3
PSYC 6355	Advanced Behavior Modification	3
PSYC 6356	Preschool and Autism Assessment	3
PSYC 6357	Cognitive Assessment	3
PSYC 6358	Academic Assessment	3
PSYC 6359	Social-Emotional Assessment of Children	3
PSYC 6360	Practicum I in Assessment	3
PSYC 6361	Practicum II in Interventions	3
PSYC 6384	School Psychology Internship I	3
PSYC 6385	School Psychology Internship II	3
Total Hours		**63**

Doctor of Philosophy in Experimental Psychology

The Doctor of Philosophy in Experimental Psychology at Tarleton State University is a rigorous research program offering comprehensive training in psychology and behavioral science at the highest level. This program is a total of 66 credit hours (30 at the 5000 level and 36 at the 6000 level) and provides students with a robust experience in experimental and quantitative research to develop knowledge and skills related to the science of human behavior in a multidisciplinary context, including critical and analytical thinking, theory development, research design and methods, statistical analysis, data interpretation, scientific writing and communication, and research ethics and social responsibility. After completing this program, students will be prepared for successful careers in the public or private sector.

The program includes an additional focus on applied experimental psychology research and practices, which is implemented through coursework, professional development, and opportunities for engagement in research conducted in applied settings. Through this program, faculty will provide students with unique research opportunities, extensive mentorship, and supervised training in their areas of expertise.

Coursework focuses on advanced training in experimental methods and statistics within the major areas and fields in psychological science. Additionally, this program offers extensive coursework in supervised research (pre-doctoral and doctoral research courses) and a variety of survey classes in major research areas in psychology (e.g., Developmental Psychology, Quantitative Psychology, Social Psychology, Industrial/Organizational Psychology, and Cognitive Psychology). In this program, students will also complete four major milestones, including the first-year project, thesis, preliminary examination, and dissertation. These milestones provide students with the ability to develop and demonstrate their skills and expertise. These milestones also offer students opportunities to create research products that can serve as manuscripts, grant proposals, conference presentations, etc.

After completing this program, students will be able to identify psychological phenomena, develop relevant and important research questions, design a research agenda to address the research questions, and use the results to generate new research questions to continue the process of scientific discovery through experimentation.

Master of Science in Experimental Psychology (Undergraduate-Level Entry)

PSYC 5316	Advanced Quantitative Methods and Experimental Design	3
PSYC 5318	Statistical Modeling for Experimental Psychology	3
Select 9 Semester Credit Hours from the following:		9
PSYC 5090	Special Topics	
PSYC 5302	Social Psychological Processes	
PSYC 5303	Learning and Cognition	
PSYC 5304	Human Development	
PSYC 5306	Behavioral Neuroscience	
PSYC 5315	Physiological Psychology	
PSYC 5320	History and Systems of Psychological Science	
PSYC 5321	Evolutionary Psychology	
PSYC 5322	Psychometrics	
PSYC 5323	Mathematical Psychology	

PSYC 5331	Group Processes	
PSYC 5379	Human Language and Discourse Processing	
Pre-doctoral Research		9
PSYC 5098	Pre-Doctoral Research	
Thesis		6
PSYC 5088	Thesis	
Total Hours for the Master of Science Degree		**30**
Required Doctoral Coursework (Graduate-Level Entry)		
PSYC 6302	Doctoral Proseminar in Experimental Psychology	3
PSYC 6317	Applied Experimental Psychology	3
Select 6 Semester Credit Hours from the following Doctoral Electives:		6
PSYC 6305	Topics in Developmental Psychology	
PSYC 6310	Topics in Neuroscience and Behavior	
PSYC 6325	Topics in Quantitative Psychology	
PSYC 6330	Topics in Social Psychology	
PSYC 6340	Topics in Industrial/Organizational Psychology	
PSYC 6370	Topics in Cognitive Psychology	
Doctoral Research		12
PSYC 6098	Doctoral Research	
Dissertation		12
PSYC 6088	Dissertation	
Total Hours for the Doctoral Degree		**36**

Professors

- Dr. Jonali Baruah
- Dr. Jamie Borchardt
- Dr. Kyle Eichas
- Dr. Tom Faulkenberry

Associate professors

- Dr. Trina Geye
- Dr. Stephanie Robertson
- Dr. Logan Yelderman

Assistant professors

- Dr. Han Hao
- Dr. Alyssa Jones
- Dr. Man'Dee Mason
- Dr. Amanda Stevens
- Dr. Chenmu (Julia) Xing

Courses

PSYC 5048. Applied Project Capstone. 1-6 Credit Hours (Lecture: 1-6 Hours, Lab: 0 Hours).
This course requires students to design and complete an independent project that integrates what the student has learned in the program and advances the application of the scientific principles of psychology. Students will communicate the results of their project via a written report and a public presentation.

PSYC 5086. Problems. 1-3 Credit Hours (Lecture: 0 Hours, Lab: 1-3 Hours).
Directed independent study or research under the supervision of a member of the psychology faculty. Prerequisites: graduate standing and approval of department head.

PSYC 5088. Thesis. 1-6 Credit Hours (Lecture: 1-6 Hours, Lab: 0 Hours).
Scheduled when the student is ready to begin the thesis. No credit until the thesis is completed. Prerequisites: Completion of all course work required by the degree and consent of the major professor.

PSYC 5090. Special Topics. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 0 Hours).
An examination of different topics each semester with a focus on contemporary issues in counseling. This course may be repeated for credit as the topic changes.

PSYC 5098. Pre-Doctoral Research. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 0 Hours).
Doctoral students who do not already have a Master's degree will conduct original research on a variety of topics in experimental psychology. Course will be graded as satisfactory or unsatisfactory. Prerequisite: Doctoral standing.

PSYC 5300. Behavioral Statistics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course explores the fundamentals of experimental research in the psychological sciences. Students will learn frameworks for hypothesis testing and effect size estimation in the context of classical statistical methods, including t-tests, analysis of variance, and correlation. Students will also gain an understanding of the interrelationships among statistical methods as well as computer skills required for data analysis.

PSYC 5301. Research Methods. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides students with a big-picture overview of the process of experimental research in the psychological sciences. Students learn to design, conduct, and evaluate experimental research. Students will learn to critically evaluate the methodology and conclusions of existing and proposed research. Students will develop a formal research proposal and will learn about the process of grant submission and peer review. Prerequisite: PSYC 5300 or equivalent graduate statistics course.

PSYC 5302. Social Psychological Processes. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An in-depth examination of the individual in a social and cultural context. Topics include: the behavior of groups, the roles of individuals within groups, and the influence of groups on an individual¿s perceptions, attitudes, emotions, and behavior. Major theories and supporting research are covered. Includes a selected emphasis on specific topics, with individual or team projects and/or original research.

PSYC 5303. Learning and Cognition. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course presents the primary theories of learning, cognition, and the factors that influence human learning and cognition. Students in this course will gain broad knowledge of how these theories and related research findings may be applied to general and special populations and in various contexts. Credit will not be granted for both PSYC 5303 and PSYC 6303.

PSYC 5304. Human Development. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course introduces major theoretical perspectives that shape human development from infancy to adulthood. Students will explore the biological, cognitive, and social aspects of human development throughout the lifespan. Students will examine empirical research, theories, cultural, and contextual factors that shape development. Credit will not be granted for both PSYC 5304 and PSYC 6304.

PSYC 5306. Behavioral Neuroscience. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Surveys the neuroscientific basis of behavior and provides an advanced appraisal of the in-depth mechanisms of the nervous system. Students will examine the role of chemical and electrical operations within the nervous system and how it influences psychological functioning. Topics will include the neural basis (chemical, electrical, and mechanistic) of behavior and cognition, and processes such as somatosensation, motor processing, perception, reward, nociception, learning and memory, and neurological disorders. Methods of research in behavioral neuroscience and experimental paradigms will also be explored. Prerequisite: Doctoral standing.

PSYC 5315. Physiological Psychology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Surveys the inter-disciplinary knowledge of the advanced structure and function of physiological systems that underlie psychological processes. Includes an exploration of the physiology of psychological processes, behavior and cognition including focus on somatosensation, motor processing, perception, reward and psychopharmacology, nociception, learning and memory, and neurological disorders. Methods of research and experimental paradigms in physiological psychology will also be explored. Credit will not be granted for both PSYC 5315 and PSYC 6315.

PSYC 5316. Advanced Quantitative Methods and Experimental Design. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides students with a solid grounding in the theory and practice of experimental design and statistical modeling that forms the empirical basis of modern psychological and behavioral sciences. Topics include frequentist and Bayesian approaches to classical between-subject designs (including single-factor and two-factor designs), repeated-measures designs, covariate designs, classical regression models, and linear mixed-effects models. Prerequisite: PSYC 5300 or equivalent graduate statistics training.

PSYC 5318. Statistical Modeling for Experimental Psychology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides doctoral students with a foundation of theory and practice in statistical modeling in the context of experimental psychology. Topics include frequentist and Bayesian approaches to estimating parameters and assessing fit of predictive models (including linear, generalized linear, and nonlinear models) in a variety of contexts beyond the typical regression context, including analysis of binary choice data, ordinal data, and count data. Topics also include an introduction to process models of behavioral and cognitive phenomena. Prerequisite: Doctoral standing; PSYC 5316.

PSYC 5320. History and Systems of Psychological Science. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides an overview of the historical development of the modern field of psychology. It examines the early roots of psychological thought beginning in ancient times through the middle ages, and the Renaissance, to the emergence of empiricism that heralded the field's formal founding. Students will examine the major schools of thought in psychology with a focus on how historical events shaped the prevailing thoughts of the time. Credit will not be granted for both PSYC 5320 and PSYC 6320.

PSYC 5321. Evolutionary Psychology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Surveys the evolutionary basis of behavior and psychological processes. Students will study mechanisms of evolution and adaptation on change, selection, mate choice, individual differences, altruism, parental investment, competition, fitness, language, emotion, culture, and cognition with a primary focus on how adaptation and evolution have influenced psychological processes. Credit will not be granted for both PSYC 5321 and PSYC 6321.

PSYC 5322. Psychometrics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course introduces students to the quantification of human behavior. Students will learn how to construct reliable and valid measures of behavior, with particular emphasis on psychological tests. The course will cover statistical techniques for evaluating reliability and validity of these tests and other types of measurement instruments. Both classical test theory and modern test theory, including factor analysis and item response theory, will be considered. Credit will not be granted for both PSYC 5322 and PSYC 6322.

PSYC 5323. Mathematical Psychology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides students with an introduction to using mathematical modeling to understand psychological and behavioral processes. The student will learn the basic mathematical techniques employed in mathematical psychology, and the course will cover a number of mathematical models and theories that have been developed and employed in various important areas of experimental psychology, including memory and forgetting, learning, and decision-making. Credit will not be granted for both PSYC 5323 and PSYC 6323.

PSYC 5324. Behavioral Data Science. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course teaches students how to use methods of data science to answer research questions in the psychological and behavioral sciences. Students will learn the full scope of skills and knowledge needed to complete a basic behavioral data science project including data acquisition (e.g., collecting data through APIs and web scraping), data processing (e.g., high performance computing and feature extraction), and data analysis (e.g., machine learning, natural language processing, and advanced regression analyses). Credit will not be granted for both PSYC 5324 and PSYC 6324.

PSYC 5331. Group Processes. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is a survey of major topics in the psychology of group dynamics. The course introduces and develops students' knowledge of history, theoretical underpinnings, and contemporary research on the psychological issues related to group behavior and collective cognition. Among the issues covered will be performance, motivation, goal setting, decision-making, creativity, social influence, memory, leadership, teamwork, and collective behavior. Prerequisite: Doctoral standing.

PSYC 5340. Psychopathology and Assessment of Children. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to provide an overview of emotional and behavioral disorders of children and adolescents and theoretical foundations and applications of psychological assessment with this population.

PSYC 5361. Teaching of Psychology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of pedagogical theories, styles, and strategies as they apply to college-level teaching of psychology. Students will explore a range of techniques for teaching of psychology courses, including presentation of course material, learning assessment tools, test construction, and grading.

PSYC 5362. Teaching of Psychology Practicum. 3 Credit Hours (Lecture: 0 Hours, Lab: 3 Hours).
The Teaching of Psychology Practicum is designed to give students supervised practical application related to teaching experience within the realm of Psychology. Students will be paired with a current faculty member teaching, but not limited to, PSYC 2301 General Psychology and PSYC 1100 Transitioning to University Studies in Psychology courses. Prerequisite: Admission to Graduate School.

PSYC 5379. Human Language and Discourse Processing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides an overview of current theory and research related to human language and discourse processing. Topics addressed in this course include linguistic principles, the perception of language, the mental lexicon, sentence and discourse comprehension, language production, language acquisition, linguistic variation, and cultural influences on language. Credit will not be granted for both PSYC 5379 and PSYC 6379.

PSYC 5381. Assessment and Evaluation Fundamentals. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines the nature and development of standardized tests, with emphasis on ethical standards, psychometric theory, test standards and test construction. Selection criteria and utilization of standardized and other instruments in various environments are considered. Includes evaluations and critiques of published tests and experiential exposure to different types of psychological tests.

PSYC 6088. Dissertation. 1-9 Credit Hours (Lecture: 1-9 Hours, Lab: 0 Hours).
Scheduled when the student is ready to begin the thorough and scholarly investigation of a topic acceptable to the dissertation committee. The dissertation must provide evidence that the candidate has pursued a coherent program of research related to the student's area(s) of academic specialization, the results of which reveal academic excellence and which make an original contribution to the discipline. Prerequisite: Doctoral standing.

PSYC 6098. Doctoral Research. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 0 Hours).
Doctoral students conduct original research on a variety of topics in experimental psychology. Course will be graded as satisfactory or unsatisfactory. Prerequisite: Doctoral standing.

PSYC 6302. Doctoral Proseminar in Experimental Psychology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The course provides new doctoral students in the Ph.D. program in Experimental Psychology the opportunity to hear and participate in discussions with doctoral faculty in the Department of Psychological Sciences. The course focuses on the development of tangible research skills, including discussion of faculty research and research strategies, thinking critically about research, and other topics relevant to students beginning Ph.D. studies. The course will address many Issues of importance to new students, including degree planning, achieving program milestones, CV development, and job opportunities following graduation. Prerequisite: Doctoral standing.

PSYC 6303. Learning and Cognition. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course presents the primary theories of learning, cognition, and the factors that influence human learning and cognition. Students in this course will gain broad knowledge of how these theories and related research findings may be applied to general and special populations and in various contexts. Credit will not be granted for both PSYC 5303 and PSYC 6303. Prerequisite: Doctoral standing.

PSYC 6304. Human Development. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course introduces major theoretical perspectives that shape human development from infancy to adulthood. Students will explore the biological, cognitive, and social aspects of human development throughout the lifespan. Students will examine empirical research, theories, cultural, and contextual factors that shape development. Credit will not be granted for both PSYC 5304 and PSYC 6304. Prerequisite: Doctoral standing.

PSYC 6305. Topics in Developmental Psychology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides an in-depth exploration of the major topics in developmental psychology. The course will examine various theoretical perspectives and research methods used in the study of topics across the lifespan. Topics may include infant, child, and adult development, aging and end-of-life topics, self-control, technology impacts on development, developmental changes across decades, social and cultural impacts, parenting, peer influences, stereotypes, disabilities, emotional, and mental health aspects that may impact development at any stage of life. In addition, students will explore the professional role that psychology brings to the field of development. Prerequisite: Doctoral standing.

PSYC 6306. Psychology of Aging. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A comprehensive study of the biological, cognitive, and social aspects of aging. The course will cover a range of topics, including cognitive changes in aging, memory, attention, and language abilities, as well as personality changes and social roles. Students will also investigate the impact of age-related changes on mental health, including depression and anxiety, as well as issues related to caregiving and end-of-life decisions. Emphasis is placed on adjusting to the evolution of the family, workplace, and societal roles. Prerequisite: Doctoral standing.

PSYC 6310. Topics in Neuroscience and Behavior. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Surveys the inter-disciplinary knowledge of an advanced topic in behavior and neuroscience as it relates to psychological processes. Develops knowledge of foundational theories, issues, historical research findings, and contemporary directions in fundamental areas of behavior and neuroscience. Methods of research and experimental paradigms in physiological psychology will also be explored. Prerequisite: Doctoral standing.

PSYC 6312. Neuropsychopharmacology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An advanced exploration of the neural mechanisms of the effects of drugs on behavior and the neuroscientific principles within psychopharmacology. Modules will include the neuroscientific knowledge of drug abuse, addiction, specific drugs (such as opioids, antidepressants, and cocaine), drugs for psychological disorders, and neurological disorders. Methods of research in psychopharmacology will also be explored. Prerequisite: Doctoral standing.

PSYC 6313. Animal Behavior. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Explores the knowledge of animal behavior from a psychological perspective. Students will examine the principles of animal behavior, behavioral endocrinology, learning, cultural transmission, selection (artificial, natural, and sexual), mating, kinship, foraging, cooperation, antipredator behaviors, habitat selection, aggression, and genetics. Students will curate a curiosity of the natural world using a scientific lens. Methods of research in animal behavior will also be explored. Prerequisite: Doctoral standing.

PSYC 6315. Physiological Psychology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Surveys the inter-disciplinary knowledge of the advanced structure and function of physiological systems that underlie psychological processes. Includes an exploration of the physiology of psychological processes, behavior and cognition including focus on somatosensation, motor processing, perception, reward and psychopharmacology, nociception, learning and memory, and neurological disorders. Methods of research and experimental paradigms in physiological psychology will also be explored. Credit will not be granted for both PSYC 5315 and PSYC 6315. Prerequisite: Doctoral standing.

PSYC 6317. Applied Experimental Psychology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course introduces and develops students' knowledge base and skillset related to contemporary applications of experimental psychology. Topics include human-computer interaction, UX design, expert systems, and ergnonomics. Prerequisite: Doctoral standing.

PSYC 6319. Research Ethics in Psychology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course develops students' knowledge of the ethical principles, codes and research ethics that guide research on human participants and animal subjects in the discipline of psychology. The course examines human and animal research and related federal regulations. Related to human research, students will develop an understanding of assessing risk, informed consent, protecting privacy and the confidentiality of research results, protecting vulnerable human research participant populations, appropriate conduct for internet based research, and conflicts of interest. Additionally, this course addresses issues of data ownership and sharing, bias and fraud in research, issues related to authorship, and professional practices related to the publication of research findings. Prerequisite: Doctoral standing.

PSYC 6320. History and Systems of Psychological Science. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides an overview of the historical development of the modern field of psychology. It examines the early roots of psychological thought beginning in ancient times through the middle ages, and the Renaissance, to the emergence of empiricism that heralded the field's formal founding. Students will examine the major schools of thought in psychology with a focus on how historical events shaped the prevailing thoughts of the time. Credit will not be granted for both PSYC 5320 and PSYC 6320. Prerequisite: Doctoral standing.

PSYC 6321. Evolutionary Psychology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Surveys the evolutionary basis of behavior and psychological processes. Students will study mechanisms of evolution and adaptation on change, selection, mate choice, individual differences, altruism, parental investment, competition, fitness, language, emotion, culture, and cognition with a primary focus on how adaptation and evolution have influenced psychological processes. Credit will not be granted for both PSYC 5321 and PSYC 6321. Prerequisite: Doctoral standing.

PSYC 6322. Psychometrics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course introduces students to the quantification of human behavior. Students will learn how to construct reliable and valid measures of behavior, with particular emphasis on psychological tests. The course will cover statistical techniques for evaluating reliability and validity of these tests and other types of measurement instruments. Both classical test theory and modern test theory will be considered, including factor analysis and item response theory. Credit will not be granted for both PSYC 5322 and PSYC 6322. Prerequisite: Doctoral standing.

PSYC 6323. Mathematical Psychology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides students with an introduction to using mathematical modeling to understand psychological and behavioral processes. The student will learn the basic mathematical techniques employed in mathematical psychology, and the course will cover a number of mathematical models and theories that have been developed and employed in various important areas of experimental psychology, including memory and forgetting, learning, and decision-making. Credit will not be granted for both PSYC 5323 and PSYC 6323. Prerequisite: Doctoral standing.

PSYC 6324. Behavioral Data Science. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course teaches students how to use methods of data science to answer research questions in the psychological and behavioral sciences. Students will learn the full scope of skills and knowledge needed to complete a basic behavioral data science project including data acquisition (e.g., collecting data through APIs and web scraping), data processing (e.g., high performance computing and feature extraction), and data analysis (e.g., machine learning, natural language processing, and advanced regression analyses). Credit will not be granted for both PSYC 5324 and PSYC 6324. Prerequisite: Doctoral standing.

PSYC 6325. Topics in Quantitative Psychology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course introduces and develops students' knowledge of theories, issues, historical research findings, and contemporary research directions in fundamental areas of quantitative psychology. Students will study topics broadly related to quantitative psychology, including hierarchical modeling, structural equation modeling, nonparametric statistics, mediation analysis, and Bayesian methods. Prerequisite: Doctoral standing.

PSYC 6330. Topics in Social Psychology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course introduces and develops students' knowledge of theories, issues, historical research findings, and contemporary research directions in fundamental areas of inquiry within social psychology. Students will study broadly within the areas of social cognition, interpersonal relations, prosocial behavior, prejudice and discrimination, group behavior, attitudes, aggression, and social identity. Prerequisite: Doctoral standing.

PSYC 6332. Theories of Personality. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will provide an overview of Personality Psychology, including the prevailing theories and research methods in the field, to explain what makes people the way that they are, the factors that shape personality, and the forces that help people behave consistently from one situation to the next. Students will learn how to identify and explain personality characteristics and their functions in a person's life. Prerequisite: Doctoral standing.

PSYC 6333. Psychology of Leadership. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines the social and cognitive psychological processes that characterize effective leadership, including the qualities of leaders, psychological exchanges between leaders and followers, and the relevant research informing the practice of leadership in various contexts. Students will gain an understanding of leadership theories, leaders and leadership development with a global perspective learning the models from different periods of history and different cultures. The group discussions and projects will create a learning environment that will not only expand students' thinking about leadership in general but also facilitate personal growth and reflection. Prerequisite: Doctoral standing.

PSYC 6340. Topics in Industrial/Organizational Psychology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The course will expose the student to the research, theory, and real-life application of organizational psychology. Topics covered will include the motivation of workers; group decision-making; leadership styles; career management, and organizational development. The class format will consist of experiential exercises combined with lectures, discussions, and demonstrations. The students will participate in work-environment-related activities in which they will learn to limit both bias and error in personnel-related decisions by applying research and theory in organizational psychology. Prerequisite: Doctoral standing.

PSYC 6341. Psychology of Creativity and Innovation. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The course will provide a broad range of empirical, theoretical, and practical approaches to creativity and innovation in groups and individuals. The topics will include the importance of group factors in stimulating creativity and innovation, social and cognitive processes underlying individual and collaborative creativity and innovation, the role of observable and deeper level variation in creativity and innovation, individual and collective self-efficacy for creativity, ways to promote collaborative creativity, and how creativity, innovation and adaptability function in organizations and business. The course will take a multi-disciplinary approach to the study of human groups and teams, cutting across different areas of thought and research. Prerequisite: Doctoral standing.

PSYC 6342. Psychology of Organizational Behavior. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed for graduate students who are interested in industrial/organizational psychology. Apart from surveying the theory and research related to human behavior in organizational context, the course describes the methodological tools the researchers use to examine how individuals, groups, and organizations behave. Some of the topics include job performance, motivation, innovation, decision-making, job satisfaction, work stress, organizational climate and culture, leadership, groups and teams, and experimental approach to organizational behavior. Prerequisite: Doctoral standing.

PSYC 6350. Professional Seminar in School Psychology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Professional preparation and socialization to the field of school psychology. History of school psychology as a discipline will be presented, along with roles and functions of the school psychologist. Ethical principles and responsibilities will be emphasized.

PSYC 6351. Legal, Ethical, and Multicultural Issues in School Psychology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Major legislation, ethical codes, and rulings that govern the provision of psychological services in schools and in psychological practice that pertain to the professions of Licensed Specialist in School Psychologist and Licensed Psychological Associate. Prerequisite: PSYC 6350.

PSYC 6352. Theory and Practice of Counseling with Children and Adolescents. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides a comprehensive exploration of the fundamental theories, techniques, and approaches within the field of psychotherapy with children and adolescents. Students will delve into the historical evolution of psychotherapy, gaining an in-depth understanding of major theoretical frameworks and their practical applications. Through a combination of theoretical discussions, case studies, role-play exercises, and critical analysis, students will develop a solid foundation in psychotherapeutic principles that can be applied across various clinical settings. Ethical considerations, cultural sensitivity, and current trends in child therapy will be examined to foster a well-rounded understanding of contemporary practice. Prerequisite: PSYC 6350.

PSYC 6353. Evidence-Based Intervention with Children and Adolescents. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Advanced course covering the implementation of empirically validated individual and group interventions with an emphasis on best practices for children and adolescents. Prerequisite: PSYC 6350.

PSYC 6354. Consultation and Supervision in Schools and Psychological Practice. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduction to theory and practices of consultation and supervision. Course goal is to facilitate development of a conceptual framework for providing consultative services to parents, families, teachers, other educational professionals, other mental health professionals, systems within public school or other educational settings and programs, and mental health or clinical settings. The second course goal is to develop a framework for providing supervision to trainees, students, and individuals working in service delivery. Prerequisite: PSYC 6350.

PSYC 6355. Advanced Behavior Modification. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Instruction and practice in the skills of behavioral observation, behavior analysis, and behavior modification and its applications in across professional settings. Students will explore principles of behavior analysis and modification, with an emphasis on understanding how behavior is shaped, maintained, and changed through systematic interventions. Through a combination of theoretical discussions, practical exercises, case studies, and hands-on applications, students will develop a deep understanding of behavior modification strategies and their relevance in various settings. Prerequisite: PSYC 6350.

PSYC 6356. Preschool and Autism Assessment. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Administration and interpretation of assessment procedures for both preschoolers and children and adolescents with autism spectrum and other developmental disorders. Prerequisite: PSYC 6350, PSYC 5340.

PSYC 6357. Cognitive Assessment. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Advanced course covering how to learn and apply psychological assessment techniques. Includes competency-based requirement for administration, scoring, interpretation and reporting of selected standardized assessment measures. Prerequisite: PSYC 6350, PSYC 5340.

PSYC 6358. Academic Assessment. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Advanced course covering how to learn and apply psychological assessment techniques in the area of academic assessment. Includes competency-based requirement for administration, scoring, interpretation and reporting of selected standardized assessment measures. Prerequisite: PSYC 6350, PSYC 5340.

PSYC 6359. Social-Emotional Assessment of Children. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Administration and interpretation of personality assessment procedures with children, including integration with other psychoeducational assessment information. Prerequisite: PSYC 6350, PSYC 5340.

PSYC 6360. Practicum I in Assessment. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Supervised training experience within public schools in which the intern develops knowledge and skills in professional school psychology. Under supervision, the student will gain practice and proficiency in the many professional skills of the school psychologist including, but not limited to, psychoeducational assessment, direct intervention, consultation, systems-level assessment, and prevention and crisis intervention programming. Prerequisite: PSYC 6330, PSYC 6350, PSYC 6351, PSYC 6352, PSYC 6353, PSYC 6354, PSYC 6355, PSYC 6356, PSYC 6357, PSYC 6358, PSYC 6359.

PSYC 6361. Practicum II in Interventions. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Supervised training experience within public schools in which the intern develops knowledge and skills in professional school psychology. Under supervision, the student will gain practice and proficiency in the many professional skills of the school psychologist including, but not limited to, psychoeducational assessment, direct intervention, consultation, systems-level assessment, and prevention and crisis intervention programming. Prerequisite: PSYC 6360.

PSYC 6370. Topics in Cognitive Psychology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course introduces and develops students' knowledge of theories, issues, historical research findings, and contemporary research directions in fundamental areas of human cognition. Students will study broadly within the areas of human learning and memory, attention, categorization, reasoning, decision making, problem solving, knowledge representation, and language. Prerequisite: Doctoral standing.

PSYC 6379. Human Language and Discourse Processing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides an overview of current theory and research related to human language and discourse processing. Topics addressed in this course include linguistic principles, the perception of language, the mental lexicon, sentence and discourse comprehension, language production, language acquisition, and cultural influences on language. Credit will not be granted for both PSYC 5379 and PSYC 6379. Prerequisite: Doctoral standing.

PSYC 6384. School Psychology Internship I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Supervised training experience within public schools in which the intern demonstrates knowledge and applies skills in professional school psychology with increasing independence. May be repeated as often as needed. Prerequisite: PSYC 6361.

PSYC 6385. School Psychology Internship II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Supervised training experience within public schools in which the intern demonstrates knowledge and applies skills in professional school psychology with increasing independence. May be repeated as often as needed. Prerequisite: PSYC 6384.

Division of Child and Family Studies

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Tarleton State University's online Master of Science (M.S.) degree in Child Development and Family Studies (CHFS), expands your career opportunities in educational and community settings. This graduate program in Child Development and Family Studies emphasizes content areas such as theories related to families and children, research methodology, and current issues impacting child development and family dynamics.

Master of Science in Child Development and Family Studies

CHFS 5313	Advanced Human Development	3
CHFS 5320	Social and Emotional Development	3
CHFS 5321	Family Theories and Research	3
CHFS 5330	Interpersonal Relationships	3
CHFS 5339	Language and Cognitive Development in Childhood	3
CHFS 5347	Child and Family Advocacy	3
CHFS 5360	Research Methods in Human Sciences	3
EDUC 5398	Techniques of Research	3
or PSYC 5300	Behavioral Statistics	
Total Hours		**24**

Professional

CHFS 5390	Capstone Project	3
3 hour approved general elective 5000- level		3
Total Hours		**6**

Thesis

CHFS 5088	Thesis	6
Total Hours		**6**

Professor

- Deborah Banker

Associate professors

- Kristina Higgins
- Lisa Taylor Cook

Adjunct professors

- Joanne Baham
- Cheryl Mixon

Courses

CHFS 5086. Special Problems. 1-6 Credit Hours (Lecture: 1-6 Hours, Lab: 0 Hours).
Open to graduate students who are capable of developing a problem independently. Problems chosen by the student and approved in advance by the instructor and department head. Prerequisite: Graduate major in College of Education. Prerequisite: Graduate major in College of Education.

CHFS 5088. Thesis. 1-6 Credit Hours (Lecture: 1-6 Hours, Lab: 0 Hours).
Scheduled when the student is ready to begin the thesis. No credit until the thesis is completed. Prerequisites: Completion of all course work required by the degree and consent of the major professor.

CHFS 5313. Advanced Human Development. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An examination of theories relating to human development and contemporary research findings in areas of the field. Developmental domains and children's relationships within family and society will be emphasized.

CHFS 5320. Social and Emotional Development. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Contemporary theory and research related to social and emotional development from infancy through young adulthood. Discussion of the impact of social and emotional development on behavior and interpersonal relationships.

CHFS 5321. Family Theories and Research. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Study of family theories and research which employ the contextual framework of the family as a system and which explain family of origin, family functioning, family structure, and family process. Application of theory and research will include examining cultural variations and public policy related to families.

CHFS 5330. Interpersonal Relationships. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A functional approach to the understanding of the interpersonal dynamics and choices in primary and secondary relationships such as those with friends, dating partners, and potential mates. The study will include a brief historical and cross-cultural perspective with emphasis on the roots of modern American customs and the rituals of dating and mate selection.

CHFS 5339. Language and Cognitive Development in Childhood. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Exploration of theories of language, literacy, and cognitive development in young children with implications for the acquisition of language, early literacy, and problem-solving concepts for all children. Explores ways that early childhood professionals and parents can enhance language, literacy, and cognitive skills and introduce appropriate, research-based approaches to early reading, writing, math, and science in a variety of settings.

CHFS 5340. Advanced Child Life. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A review of the historical and theoretical perspectives on the development of the child life field and information on fundamental skills required to help children and families cope with the stress of the health care experience. This course is required for the Child Life Specialist Certification.

CHFS 5347. Child and Family Advocacy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course focuses on the knowledge, skills, and strategies necessary to understand the impact of social policies and institutional practices on the well-being of children and families.

CHFS 5350. Advanced Methods of Family Life Education. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An understanding of the philosophies and principles of family life education, including knowledge of the family life certification process and content areas. This course will include a survey and critique of various existing family life education programs as well as the development, implementation, and evaluation of new evidence-based programs.

CHFS 5360. Research Methods in Human Sciences. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will provide an overview of study design and data analysis methods. Both qualitative and quantitative approaches will be covered, and the publication and peer-review process will be discussed.

CHFS 5390. Capstone Project. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course requires students to design and complete an independent project that addresses a practical, real world challenge by integrating the skills and knowledge students have gained throughout their program of study. Students will communicate the results of their project via a written report and an online presentation. The completed project will demonstrate critical thinking, research-based best practices, review of scholarly literature, and formal reporting consistent with APA style. Students will complete the master's required comprehensive exams during this course.

College of Engineering

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The Mayfield College of Engineering was established in June 2022. The mission of the Mayfield College of Engineering is to facilitate in students the development of advanced engineering knowledge and skills through rigorous hands-on academic programs supported by industry partnerships. To achieve the mission, faculty and staff perform groundbreaking research, as well as deliver advanced education in a new building containing state-of-the-art teaching laboratories, classrooms, and makerspaces. Faculty members collaborate closely with industry to provide students with career opportunities and bring real-world engineering activities to the classroom. The academic environment in the college encourages students to discover, design, and implement innovative solutions to real-world challenges and instills in them a sense of civility, ethics, community engagement, and entrepreneurship. The main goal of the Mayfield College of Engineering is student success!

The College has three departments: Computer Science and Electrical Engineering department, Engineering Technology department, and Mechanical, Environmental, and Civil Engineering department. More than 30 faculty members teach 17 academic programs in the college, 12 undergraduate and 5 graduate programs. Our programs benefit from the advice of industry through Industry Advisory Boards.

Departments and Programs

- Department of Computer Science and Electrical Engineering (p. 89)
  - MS Computer Engineering
  - MS Artificial Intelligence and Machine Learning
- Department of Engineering Technology (p. 91)
  - MS Quality and Engineering Management
  - MS Construction Science and Management
- Department of Mechanical, Environmental, and Civil Engineering (p. 95)
  - MS Civil Engineering
  - MS Mechanical Engineering

Department of Computer Science and Electrical Engineering

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Master of Science in Artificial Intelligence and Machine Learning

The Master's degree in Artificial Intelligence and Machine Learning (AIML) is designed to prepare students for career advancement, or for further studies at the doctoral level. The program has two options, thesis and professional (non-thesis), each offered either completely online or face-to-face at the Stephenville campus. It is a research-based program of study, requiring students to complete independent work that culminates in several projects, and, in one of the options, a thesis project.

Admission to the program requires a Bachelor’s degree in computer science, AIML, or a related discipline from an accredited institution. Students not meeting this requirement will be considered for admission on an individual basis and may be admitted subject to the completion of appropriate undergraduate leveling courses to remove any deficiencies in preparation; in this case the department will recommend leveling courses, depending on the student's transcript.

Students must maintain a GPA of 3.0 or better, and make grades of C or better in all courses on the degree plan. No undergraduate courses can be counted towards this Master’s degree. A maximum of 12 graduate credit hours may be transferred.

Additional details can be found on the department website www.tarleton.edu/csee (http://www.tarleton.edu/csee/).

COSC 5360	Artificial Intelligence	3
MATH 5305	Statistical Models	3
Choose four courses from the following [1]		12
COSC 5346	Robotics and Autonomous Systems	
COSC 5345	Reinforcement Learning	
COSC 5347	High Performance Computing	
COSC 5352	Optimization for Machine Learning	
COSC 5361	Deep Neural Networks	
CPEN 5341	Advanced Algorithms	
CPEN 5342	Parallel Computing and Algorithms	
CPEN 5366	Robot Vision	
Choose three 5000 level courses from COSC, CPEN, or MATH		9
Total Hours		**27**

[1] If student chooses the Non-Thesis concentration, the named elective they take for the concentration requirement must be different from the elective courses they chose for the program requirement. The student cannot repeat a course.

Non-Thesis (Professional)

Choose one from the following		3
COSC 5346	Robotics and Autonomous Systems	
COSC 5345	Reinforcement Learning	
COSC 5347	High Performance Computing	
COSC 5352	Optimization for Machine Learning	
COSC 5361	Deep Neural Networks	
CPEN 5341	Advanced Algorithms	
CPEN 5342	Parallel Computing and Algorithms	
CPEN 5366	Robot Vision	
Choose two 5000 level courses from COSC, CPEN, or MATH		6
Total Hours		**9**

Thesis (Research)

COSC 5088	Thesis Research	6
Total Hours		**6**

Master of Science in Computer Engineering

The Master's degree in Computer Engineering is designed to prepare students for career advancement, or for further studies at the doctoral level. It has two options, thesis and professional (non-thesis). It is a research-based program of study, requiring students to complete independent research that culminates in several projects, and, in one of the options, with a thesis project. Either option includes rigorous curriculum and allows students to concentrate their program in the following specialized areas: Computer Architecture and Distributed Computing; Advanced Computer Networks; VLSI Circuit Design; Robotics, Artificial Intelligence, and Machine Learning.

Admission to the program requires a Bachelor’s degree in computer engineering, electrical engineering or computer science from an accredited institution. Students not meeting this requirement will be considered for admission on an individual basis and may be admitted subject to the completion of appropriate undergraduate leveling courses to remove any deficiencies in preparation; in this case the department will recommend leveling courses, depending on the student's transcript.

Students must maintain a GPA of 3.0 or better, and make grades of C or better in all courses on the degree plan. No undergraduate courses can be counted towards this Master’s degree. A maximum of 12 graduate credit hours may be transferred.

Master of Science in Computer Engineering

CPEN 5343	Advanced Computer Architecture	3
CPEN 5351	Introduction to Convex Optimization	3
CPEN 5355	VLSI Architectures	3
CPEN 5378	Advanced Computer Networks	3
CPEN Electives		6
Total Hours		**18**

Professional (non-thesis)

CPEN Electives		6
Electives - 5000-level: ELEN, COSC, MATH, or BCIS		12
Total Hours		**18**

Thesis

Electives - 5000-level: ELEN, COSC, MATH, or BCIS		9
CPEN 5099	Thesis Research	6
Total Hours		**15**

Computer Engineering Courses

CPEN 5099. Thesis Research. 1-6 Credit Hours (Lecture: 1-6 Hours, Lab: 0 Hours).
Research for Master’s thesis in Computer Engineering Prerequisites: Graduate standing.

CPEN 5341. Advanced Algorithms. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Amortized analysis, graph, network flow, string matching, matrix and polynomial algorithms, linear programming, NP-completeness, approximation algorithms, and an introduction to parallel algorithms. Prior knowledge or experience in data structures and algorithms recommended. Prerequisite: Approval of department head.

CPEN 5342. Parallel Computing and Algorithms. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Taxonomy of parallel computers, shared-memory and message-passing architectures, theoretical models; patterns and strategies for designing parallel algorithms; parallel data structures; automatic parallelization of sequential programs; communication; synchronization and granularity; applications. Prior knowledge or experience in Computer Architecture is recommended.

CPEN 5343. Advanced Computer Architecture. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The course is structured around the three primary building blocks of general-purpose computing systems: processors, memories, and networks. Topics include the limitations of scalar pipelines, superscalar execution, out-of-order execution, register renaming, memory disambiguation, branch prediction, and speculative execution; multithreaded, VLIW, and SIMD processors; non-blocking cache memories, and memory synchronization, consistency, and coherence; multi-core, shared-memory architectures. The course also covers techniques for quantitative analysis of computer systems, to understand and compare alternative design choices. Prior knowledge or experience in Computer Architecture is recommended. Prerequisite: Approval of department head.

CPEN 5348. Advanced VLSI Circuit Design. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Analysis and design of key analog and mixed-signal IC blocks: analog switches, sampling circuits, switched-capacitor filters, ADCs, DACs, PLLs. Low-power design techniques and machine learning applications for analog and mixed-signal ICs. Prior knowledge or experience in Electronics II and Digital Signal Processing is recommended. Prerequisite: Approval of department head.

CPEN 5351. Introduction to Convex Optimization. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course introduces convex optimization problems, the basics of convex analysis, algorithms for convex optimization and their complexities, and applications of convex optimization. The course also trains students to recognize convex optimization problems that arise in scientific and engineering applications, and to use software tools to solve convex optimization problems. Prior knowledge or experience in Calculus III and Matrix Algebra is recommended. Prerequisite: Approval of department head.

CPEN 5355. VLSI Architectures. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The course covers the most important methodologies for designing custom or semi-custom VLSI systems for typical signal processing and communications applications. Techniques for the inner and outer receiver, mapping of algorithms onto array structures, digital signal processing (DSP) systems, and field programmable gate arrays (FPGAs), programmable signal processors. Prior knowledge or experience in Computer Architecture is recommended. Prerequisite: Approval of department head.

CPEN 5366. Robot Vision. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course aims at bridging the gap between computer vision and deep learning. It covers topics such as object detection and recognition, machine learning algorithms for computer vision, and advanced techniques for 3D computer vision. Real world applications and projects will be implemented in the areas of autonomous vehicles and robotics. Prior knowledge or experience in Computer Vision, Python, and C/C++ programming is recommended. Prerequisite: Approval of department head.

CPEN 5377. Wireless and Mobile Communication Networks. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Advanced architectures for wireless communication networks; advanced wireless technologies; challenges and issues in designing such networks; queueing theory and other stochastic models. Prior knowledge or experience in Computer Networks or Communication Systems Theory, Probability, one semester of programming is recommended. Prerequisite: Approval of department head.

CPEN 5378. Advanced Computer Networks. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course concentrates on routing and inter-networking in IP networks, while addressing contemporary topics like wireless networks, security, voice and video over IP, the Internet of Things (IoT), software-defined networking, and network virtualization. Prior knowledge or experience in Computer Networks is recommended. Prerequisite: Approval of department head.

CPEN 5379. Performance of Computer and Communication Networks. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Application of probability, Markov chains, and queueing theory to the analysis and design of computer and communication networks. Case studies in traffic shaping and multiplexing, static routing, dynamic routing, and peer-to-peer file sharing systems. Both continuous-time and discrete-time models are explored. Prior knowledge or experience in Computer Networks or Communication Systems Theory, Probability is recommended. Prerequisite: Approval of department head.

Computer Science Courses

COSC 5086. Advanced Special Problems in Computer Science. 1-6 Credit Hours (Lecture: 1-6 Hours, Lab: 0 Hours).
Advanced special problems in computer science. Work may be either theory or laboratory. May be repeated with approval of the department head for additional credit.

COSC 5088. Thesis Research. 1-6 Credit Hours (Lecture: 1-6 Hours, Lab: 0 Hours).
Research for Master's thesis in AI and Machine Learning (AIML-MS).

COSC 5330. Simulation. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduction to simulation with emphasis on simulation methodology, random number generation, time flow mechanisms, sampling techniques, and validation and analysis of simulation models and results. Simulation languages and their applications will be investigated.

COSC 5345. Reinforcement Learning. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will provide an introduction to, and comprehensive overview of, reinforcement learning (RL). Topics include Markov decision process and dynamic programming, Monte-Carlo methods, temporal difference learning, integration of planning and learning, policy gradient and actor-critic methods, deep learning and deep RL algorithms. Students will engage in exercises and projects that involve coding in simulated RL environments. Credit will not be awarded for both COSC 4345 and 5345. Graduate students will have to complete additional assignments. Prerequisite: Advanced background in statistics and artificial intelligence.

COSC 5346. Robotics and Autonomous Systems. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Overview of the major areas of robotics and autonomous systems. AI, machine learning and optimization algorithms that enable autonomous agents to operate in unstructured, dynamic environments, including localization and mapping, sensor fusion, computer vision, path planning, communication, and obstacle avoidance. Students will engage in exercises and projects that involve developing robotics systems with autonomous actions, and evaluating their performance using computer simulations and physical robotic systems. Credit will not be awarded for both COSC 4346 and 5346. Graduate students will have to complete additional assignments. Prerequisite: Advanced background in statistics, linear algebra and artificial intelligence.

COSC 5347. High Performance Computing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides an introduction to programming massively parallel processors and the architectures therein. It covers methods to harness the potential of Graphical Processing Units (GPUs) and parallel algorithms using the CUDA parallel computing platform. Algorithms from the fields of Scientific Computing, Machine Learning, and Computer Vision are introduced and explored.

COSC 5352. Optimization for Machine Learning. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will explore the theory and algorithms that arise in machine learning and modern data analysis. The topics will be tailored with a particular focus on complexity, implementation, robustness, and scalability of algorithms to large datasets. Students will engage in exercises and projects that involve programming optimizations algorithms, and evaluating their performance.

COSC 5360. Artificial Intelligence. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduces representations, algorithms and architectures used to build intelligent systems. Predicate calculus, state-space representation and search, heuristic search, knowledge-based problem-solving, symbol-based and connectionist machine learning, intelligent agents, robotics.

COSC 5361. Deep Neural Networks. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduction to the principles and theory of neural networks, with emphasis on deep neural networks. Topics include convolutional networks, recurrent and LSTM networks, reinforcement learning, preprocessing, regularization, tuning and optimization, as well as mathematical and programming tools. Applications to classification, image recognition, autonomous vehicles. Credit will not be awarded for both COSC 4361 and 5361. Graduate students will have to complete additional assignments. Prerequisite: Advanced background in statistics, linear algebra and artificial intelligence.

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Engineering Technology is part of the engineering field which requires the application of scientific and engineering knowledge and methods combined with technical skills in support of engineering activities. The mission of the Department of Engineering Technology is to provide students an academically challenging program of study in technical fields that prepares graduates to make immediate contributions, to establish successful careers, and to assume leadership roles in engineering, manufacturing, and construction. By leveraging the substantial experience of its faculty, the department offers programs focused on application and experiential learning that support the combination of conceptual and practical skills. This approach allows our students to see technology in terms of theory, implementation, and innovation.

The Department offers online graduate programs of study leading to a Master of Science degree in Construction Science and Management (CSM) and Quality and Engineering Management (QEM). These allow our students to maintain professional and personal commitments while furthering their education.

Master of Science in Construction Science and Management

The master's in construction science and management (CSM) at Tarleton State University is designed to help advance construction graduates into more middle and senior management level roles. The program is designed as a pathway to acquire more technical skills that are synonymous with the current changes the industry is experiencing with technology advancement. The program focuses on management applications for all interdisciplinary studies in commercial, industrial, residential, heavy civil, and mixed used constructions, leveraging on fundamental and advanced knowledge skills in addressing the wide range of challenges required to solve practical site and office challenges the industry continues to experience.

Graduates from the program will have improved skills in estimating, scheduling, project management, leadership, and legal issues leveraging on advanced skill sets that guides technological innovation. Our graduates will be well rounded in decision making, risk management, quality management, sustainable concepts, BIM, and other computer applications in construction from pre-construction to maintenance stages. The program is supported by the Construction Industry Advisory Council (CIAC) which provides our graduates with access to practical experience, research opportunities, and guest lectures using real-world scenarios to help graduates choose a path into the industry or into Ph.D. fields that best align with their interest and learning.

Admission to the master's of construction science and management requires a bachelors degree in construction science and management, civil engineering, or other related field of study from an accredited institution. Students not meeting the requirement will be considered for admission on an individual basis and may be subject to the completion of appropriate undergraduate courses. Students must maintain a GPA of 3.0 or better, and make grades of C or better in all required courses on the degree plan. Grades completed in other institutions or at Tarleton before the start of the master's program will not be automatically included, but will be subject to the C requirement and evaluated on course-by-course matching. A maximum of 12 credit hours may be transferred.

This online program is designed with two 30-hour options: Non-Thesis and Thesis Option, both options are flexible to accommodate professional working students with career goal for attaining advanced knowledge and getting promoted to a more senior management role. Our flexible Thesis option allows for a project-based study with no interest for a Ph.D. program and research study and writing for students inclined to go for a Ph.D. program.

Program Special Benefits:

- Designed to help the students increase their earning and promotion potential through enhanced skill sets with several technical and hands-on experience studies to become a better executor and manager of engineered works.
- Industry managers on advisory board help play a vital role to ensure graduates gain the most relevant skill sets that are marketable and in high demand in construction.
- Emphasis on the application of techniques and tools to address the complexity of estimating and scheduling without impeding on safety and quality while managing processes and logistics for long lead items for successful project delivery.

CNST 5301	Research Fundamentals in Construction Management	3
CNST 5302	Construction Project Management Principles	3
CNST 5310	Advanced Construction Cost, Cash Flow Analysis and Bidding	3
CNST 5312	Advanced Project Scheduling and Controlling	3
CNST 5313	Advanced Building Information Modeling	3
CNST 5322	Sustainability in Construction	3
CNST 5323	Productivity in Construction and Lean Fundamentals	3
CNST 5326	Advanced Construction Materials, Methods, and Equipment Operations	3
Total Hours		**24**

Non-Thesis

Select 6 Hours from:		6
CNST 5303	Leadership in Construction Management	3
CNST 5320	Contracts and Legal Issues in Construction	3
CNST 5321	Construction Risks Analysis and Management	3
Total Hours		**15**

Thesis

CNST 5088	Thesis	6
Total Hours		**6**

Master of Science in Quality and Engineering Management

The mission of the Master of Science in Quality and Engineering Management (QEM) program is to provide an online pathway for working professionals to acquire the knowledge and skills necessary to be successful in the operations management area of many industries. The QEM also provides a unique opportunity for professionals with non-technical degrees to enter the program after leveling, recognizing that challenges to the management of quality and associated processes are industry agnostic and that their solutions require people with a diverse set of backgrounds. Students are able to further focus their studies with concentrations in Engineering Management, Construction, and Industrial Distribution. The program also offers a thesis option for Engineering Management.

The engineering management discipline bridges the gap between engineering and management. The American Society for Engineering Management defines engineering management as “an art and science of planning, organizing, allocating resources, and directing and controlling activities that have a technological component.” Lastly, the program provides students a foundational knowledge for obtaining Project Management Institute, American Society for Quality, and Association for Supply Chain Management professional certifications.

Leveling Requirements

After an MS in QEM applicant is admitted to the College of Graduate Studies, his/her transcript is evaluated by the Engineering Technology Department. The student's educational background and work experience is evaluated to determine what leveling requirements or program prerequisites may be needed. Basic prerequisites include coursework in statistics, project management, and engineering economy. A student who does not have coursework in these areas should expect to take the ENGT 5300, Engineering Management Survey leveling course. This course does not count toward the 30 hours required for the degree.

ENGT 5303	Engineering Economics and Decision Analysis	3
ENGT 5324	Statistics for Engineering Management [1]	3
ENGT 5325	Advanced Concepts in Six Sigma	3
ENGT 5332	Financial Risk for Engineering Project Management	3
ENGT 5368	Quality Management	3
ENGT 5385	Advanced Concepts in Project Management	3
Total Hours		**18**

Construction

CNST 5313	Advanced Building Information Modeling	3
CNST 5320	Contracts and Legal Issues in Construction	3
CNST 5322	Sustainability in Construction	3
CNST 5326	Advanced Construction Materials, Methods, and Equipment Operations	3
Total Hours		**12**

Engineering Management

ENGT 5336	Production and Inventory Control	3
ENGT 5345	Systems Engineering	3
ENGT 5362	Supply Chain Management	3
ENGT 5398	Research in Engineering Management Topics	3
Total Hours		**12**

Engineering Management Thesis

ENGT 5088	Thesis	6
ENGT 5345	Systems Engineering	3
ENGT 5362	Supply Chain Management	3
Total Hours		**12**

Industrial Distribution

ENGT 5336	Production and Inventory Control	3
ENGT 5362	Supply Chain Management	3
ENGT 5365	Logistics, Transportation, and Distribution	3
ENGT 5398	Research in Engineering Management Topics	3
Total Hours		**12**

The thesis option involves an original research project under the direction of a graduate faculty member and the preparation of a thesis in addition to the prescribed course work. A thesis proposal will be prepared by the student for approval by the student's advisory committee and the College of Graduate Studies prior to the initiation of research. The thesis proposal and the thesis will be in conformance with the guidelines and deadlines established by the College of Graduate Studies. The thesis must demonstrate the capability of the student to perform original research and to present the results obtained from such research in a clear, concise, and well-organized manner.

Construction Courses

CNST 5086. Special Problems in Construction Management. 1-6 Credit Hours (Lecture: 1-6 Hours, Lab: 0 Hours).
Individual problems in the area of building construction involving the application of theory and practice. Selected topics in an identified field of construction management.

CNST 5088. Thesis. 1-6 Credit Hours (Lecture: 1-6 Hours, Lab: 0 Hours).
Scheduled when the student is ready to begin the thesis. No credit until thesis is completed. Student must have submitted approved thesis proposal before taking for credit.

CNST 5301. Research Fundamentals in Construction Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Research fundamentals in preparation for conducting studies related to construction which include topics such as research tools, proposal writing, and research reports; emphasis on research planning and design, conducting a comprehensive review of literature, quantitative and qualitative research methodologies, defining research problems in construction management, and the development of research proposals.

CNST 5302. Construction Project Management Principles. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Principles, theories, practical applications, and strategic development in the management of contemporary construction projects; advanced techniques used in scheduling and evaluating progress in construction project control; exploration of state-of-the-art management principles and practices, and development of additional insights.

CNST 5303. Leadership in Construction Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course introduces personal leadership styles and strategies for effective communication and collaboration. Students will engage in team activities and complete personal assessments and surveys to better understand their own approaches and improve their ability to work productively with others.

CNST 5310. Advanced Construction Cost, Cash Flow Analysis and Bidding. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Determination of quantities for various types of construction materials and works including earthwork, foundations, structural systems, mechanical and electrical systems, and building finishes; methods used for pricing of construction works including labor, materials, equipment, sub-contractors, overhead, and profit; cash flow for owner and contractor; construction economics including life cycle cost of a project; bidding process and methods.

CNST 5312. Advanced Project Scheduling and Controlling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Advanced techniques and computer applications for the planning, scheduling, monitoring, and controlling of contemporary construction projects; includes key scheduling techniques such as Gantt Chart, CPM, PERT, LSM, and EVM; practical scheduling practices such as tracking, controlling, and forecasting trends of schedules, cost controls, and reporting.

CNST 5313. Advanced Building Information Modeling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduces techniques for creating, managing, and applying building information models in the building design and construction process. The course covers processes and tools for creating, organizing, and working with 3D, 4D, 5D, and 6D modeling representations of building components and geometries to produce models used in architectural design, construction planning and documentation, rendering and visualization, simulation, and analysis. The course also focuses on clash detection in determining project issues and constraints; project team communication and collaboration.

CNST 5320. Contracts and Legal Issues in Construction. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Exploration of contractual relationships, legal roles and responsibilities, and contract types and address issues of contract law, legal issues, and insurance. The course will focus on disputes that typically arise in project performance and the options that exist to resolve potential liabilities that typically arise in residential and commercial construction disputes. Contract dispute resolution including negotiations, alternative dispute resolution, and litigation of disputes will be studied.

CNST 5321. Construction Risks Analysis and Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Advanced construction risk analysis and management applicable to the construction industry; risk analysis procedures; identification of common disputes and construction risks among the owner, design professionals, and contractor; analysis of construction contracts with an emphasis on troublesome provisions and solutions.

CNST 5322. Sustainability in Construction. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Sustainable materials and methods in meeting the needs of contemporary construction projects without compromising the ability of future generations to meet their own needs; overview of international, national, and local programs promoting sustainable construction; characteristics of the components of successful sustainable construction projects; theories and practices through case studies; examination of current policies and requirements for sustainable construction such as LEED and NGBS.

CNST 5323. Productivity in Construction and Lean Fundamentals. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An in-depth study of common issues relating to productivity improvements in construction. Introduction to lean history, concepts, and methods; deduction of basic training modules in lean project delivery; application of lean management in construction projects.

CNST 5326. Advanced Construction Materials, Methods, and Equipment Operations. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Advanced construction materials and methods of construction with an emphasis on the design and construction process; includes structural steel and other metals, foundation materials, precast and tilt-up wall concrete, concrete reinforcement including pre-stressing, wood dimension lumber framing, and heavy timber framing; Equipment operation and selections.

Engineering Technology Courses

ENGT 5086. Problems. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 0 Hours).
This course is designed to meet the needs of Manufacturing Quality and Leadership students who have above average academic ability and who need to pursue subject matter that is not normally included in the Manufacturing Quality and Leadership curriculum. Approval for enrollment in this course shall be with the concurrence of the individual instructor and the department head.

ENGT 5088. Thesis. 1-6 Credit Hours (Lecture: 1-6 Hours, Lab: 0 Hours).
This course is designed to meet the needs of Quality and Engineering Management students who have above average academic ability and who need to pursue subject matter that is not normally included in the curriculum. A master's thesis is a piece of original scholarship written under the direction of a faculty advisor. A master's thesis is similar to a doctoral dissertation, but it is generally shorter and more narrowly focused. Students who chose to write a master's thesis often do so because they are interested in pursuing research. Like a good journal article, a master's thesis will respond to a debate of Engineering Management literature and will bring new evidence or arguments to bear upon the topic. Approval for enrollment in this course shall be with the concurrence of the individual instructor and the department head.

ENGT 5300. Engineering Management Survey. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course explores the concepts of the time value of money, project definition and control, and uncertainty in project evaluation. The course is intended for students who do not have the required backgrounds in engineering economics, project management, and statistics needed for the QEM program and does not count towards the degree requirements. Prerequisite: Advisor approval.

ENGT 5303. Engineering Economics and Decision Analysis. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Analysis of engineering costs and capital investments. Applications of classical optimization, mathematical programming, and the theory of production to the analysis of investment proposals. Evaluation and selection of individual projects and formulation of capital investment programs.

ENGT 5324. Statistics for Engineering Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduction to decision making using quantitative methods. In addition to exploratory data analysis, basic probability, distribution theory, and statistical inference will be covered. Special topics will include experimental design, regression, control charts, and acceptance sampling.

ENGT 5325. Advanced Concepts in Six Sigma. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Six Sigma and Design of Experiments allows students to identify and apply statistical variation methods that enable improvements for enhanced operational performance. Six Sigma is a data-driven approach for eliminating defects and waste in a business or operational process. Six Sigma knowledge can be applied to enhance operational and process performance resulting in improved effectiveness and efficiency. Six Sigma knowledge and skills enhance a student's ability to identify and implement process variation resolution. The course will apply the Define, Measure, Analyze, Improve and Control process. The course will emphasize the use of data driven measures through Design of Experiments, Measures of Variation, and Data Analysis. Prerequisite: ENGT 5368 ENGT 5324.

ENGT 5332. Financial Risk for Engineering Project Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Financial Risk Management for Engineering Projects addresses the process used to identify potential project financial risks both positive and negative. This course will provide an understanding of the project financial risk impacts as they relate to projects. The course will focus on the combination of risks and impacts to quality, operational, and financial issues as prescribed by risk practices. The course consists of identifying risks, analyzing them, and responding to risks throughout the project life cycle. This course is accomplished through application of American National Standards Institute (ANSI) 31004 and International Standards Organization (ISO) 3100 methods. Prerequisite: ENGT 5303.

ENGT 5336. Production and Inventory Control. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course explores the planning and control systems and processes that operate within a typical factory or service organization including: demand management, forecasting, sales and operations planning, scheduling, material requirements planning, and capacity management. The concepts of Enterprise Resource Planning, Just-in-Time, and supply chains are introduced. This course helps prepare students for the APICS Certified in Production and Inventory Management certification exams.

ENGT 5345. Systems Engineering. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Concepts of systems thinking. Covers the methodology used in systems engineering, including concept exploration and development, product/service development, system design/production, maintenance and support, and system domains definition and implementation.

ENGT 5346. Manufacturing Systems Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of concepts and models used as a competitive advantage in the management of processes to produce and supply goods in the manufacturing/service industries. Topics will include operations management and strategy, product design and learning curves, project management, Manufacturing/Service process selection and design. Applications of Operations Research science techniques enable the development of the Manufacturing Systems Management methodologies.

ENGT 5362. Supply Chain Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Exploration of the key drivers associated with the design and management of industrial supply chains. The course will focus in covering high level supply chain strategy and concepts, and the use of analytical tools to solve supply chain problem. Specific content will include strategy, supply chain metrics and drivers, network design, forecasting, sales and operations planning, supply chain uncertainty, inventory, sourcing and sustainability and technology. Course helps prepare students for the APICS Certified Supply Chain Professional certification exam.

ENGT 5365. Logistics, Transportation, and Distribution. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides an understanding of how logistics, transportation, and distribution systems operate across an enterprise and how they can be made more efficient. Topics include: Strategy, order management, inventory and warehouse management, packaging and materials handling, transportation fundamentals. Global logistics basics, reverse logistics, and sustainability. This course helps prepare students for the APICS Certified in Logistics, Transportation, and Distribution (CLTD) certification exam.

ENGT 5368. Quality Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The course focuses on the practical application of process improvement tools and the reduction of variation in production and operations processes. Statistical process control charts are created, and process capabilities are determined through the use of problems and case studies that cross multiple industries. Emphasis is placed on the interpretation, understanding, and use of quality principles and concepts throughout the problem-solving process. The history of the quality movement is covered and along with the steps in the quality improvement process. Best practices are presented, such as ISO 9000 Standards, Six Sigma, and supplier certification. Quality Function Deployment and Design of Experiments are introduced along with costs of quality and product liability issues. Prerequisite: ENGT 5324 or concurrent enrollment.

ENGT 5376. Automated Manufacturing Systems. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
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ENGT 5385. Advanced Concepts in Project Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Project Management is the use of specific knowledge, skills, tools and techniques to deliver project value to a customer or organization. Project Management is a set of principles and guidelines to manage and deliver a project. Use of Project Management concepts improve project delivery success within budget, scope, and schedule to customers and stakeholders. This course explores major problems, tasks and techniques required to manage a technical project through each phase of a project's life cycle of Initiating, Planning, Executing, Controlling, and Closing. Each phase of the project life cycle as defined by Project Management Institute, and International Standards Organization are applied. Additional concepts such as: Earned Value Analysis (EVA), Critical Path Management (CPM), Project Requirements Analysis, Requirements Control Analysis (RCA), Risk Assessment, and Monte Carlo Analysis will be explored in depth. Prerequisite: ENGT 5324.

ENGT 5398. Research in Engineering Management Topics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Engineering Research exposes the student to the complexities and realities of completing an in-depth research paper using American National Standards Institute (ANSI) and American Psychological Association (APA) guidelines on a topic of real-world technology needs. Guides the student through an in-depth application of the principles, techniques of quality and engineering technical research. Technology innovation is a result of engineering research leading to new products and methods for today's global needs. During Engineering Research students write papers based on self-chosen technology topic that reflects the complexities and realities of that subject. Engineering Research enhances student competency through an in-depth topic's research paper. Students will review current literature in the topic field and write a comprehensive report on the topic. Prerequisite: ENGT 5325 or concurrent enrollment.

Department of Mechanical, Environmental, and Civil Engineering

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Master of Science in Mechanical Engineering

The Master of Science in Mechanical Engineering program is an industry-focused, practice-oriented degree that will deepen mechanical engineering skills in design, manufacturing, controls, robotics, energy, sustainability, and much more. What sets our program apart is its strong emphasis on integrating applied mechanics, computer simulations, design, and energy science and technology. The graduate program provides a strengthened technical background for mechanical engineering and other multidisciplinary problems that we intend to us as a thread in the curriculum.

Admission to the master's mechanical engineering program requires a bachelor's degree in mechanical engineering or related field of study from an accredited institution. Students not meeting this requirement will be considered for admission on an individual basis and may be admitted subject to the completion of appropriate undergraduate courses to remove any deficiencies in preparation.

Students must maintain a GPA of 3.0 or better, and make grades of C or better in all courses on the degree plan. Grades for courses completed at other institutions, or at Tarleton before the start of the master's degree, are not included in the degree plan GPA, but they are still subject to the requirement of C or better. No undergraduate courses can be counted towards the master's degree (Tarleton rule). A maximum of 12 graduate credit hours may be transferred.

Master of Science in Mechanical Engineering Program Requirements

Required Courses		
MEEN 5310	Advanced Solid Mechanics	3
MEEN 5320	Optimization of Engineering Systems	3
MEEN 5330	Mechanics of Viscous Flow	3
MEEN 5333	Advanced Engineering Thermodynamics	3
MEEN 5332	Advanced heat transfer	3
MEEN 5360	Introduction to Robotics	3
Choose one from the following:		3
MATH 5305	Statistical Models	
MATH 5306	Dynamical Systems	
MATH 5330	Mathematical Modeling	
MATH 5360	Numerical Analysis	
MEEN 5390	Advanced Engineering Mathematics	
Any other approved 5000 level course in MATH		
Total hours		21

Professional (non-thesis)

MEEN 5311	Finite Element Analysis: Theory and Practice	3
MEEN 5325	Advanced Materials Engineering	3
Choose one from the following:		3
MEEN 5321	Lean Six Sigma (Choose one from the following:)	
MEEN 5340	Advanced Energy Systems	
MEEN 5331	Computational Methods for Fluid Mechanics and Heat Transfer	3
Total Hours		12

Thesis

MEEN 5088	Master's Thesis	6
Choose one from the following:		3
MEEN 5311	Finite Element Analysis: Theory and Practice	
MEEN 5331	Computational Methods for Fluid Mechanics and Heat Transfer	
Choose one from the following:		3
MEEN 5321	Lean Six Sigma	
MEEN 5340	Advanced Energy Systems	
MEEN 5325	Advanced Materials Engineering	
Total Hours		12

Master of Science in Civil Engineering Program Requirements

Select two from the following courses:		6
CVEN 5301	Advanced Structural Analysis	
CVEN 5325	Advanced Foundation Engineering	
CVEN 5360	Highway Planning & Design	
CVEN 5310	Water Resources Engineering	
CVEN 5319	Unit Operations	
Select four from the following courses:		12
CVEN 5304	Advanced Steel and Timber Design	
CVEN 5305	Advanced Reinforced Concrete Design	
CVEN 5309	Design of Buried and Earth Structures	
CVEN 5311	Soil Improvement & Remediation	
CVEN 5315	Bridge Design	
CVEN 5318	Pavement Material & Management	
CVEN 5322	Surface Water Hydrology	
CVEN 5323	Ground Water Hydrology	
MEEN 5310	Advanced Solid Mechanics	
CVEN 5316	Pre-Stressed Concrete Design	
CVEN 5324	Surface Water Quality Modeling	
CVEN 5320	Chemical & Biological Processes in Water Treatment	
CVEN 5308	In-Situ Testing	
Select two from the following courses:		6
MEEN 5311	Finite Element Analysis: Theory and Practice	
MEEN 5390	Advanced Engineering Mathematics	
COSC 5361	Deep Neural Networks	
CPEN 5366	Robot Vision	

MATH 5305	Statistical Models	
MATH 5330	Mathematical Modeling	
Total Hours		**24**

Non-Thesis

Choose two from the following:		6
CVEN 5316	Pre-Stressed Concrete Design	
CVEN 5324	Surface Water Quality Modeling	
CVEN 5308	In-Situ Testing	
CVEN 5084	Internship	
CVEN 5098	Research Project	
Total Hours		**6**

Thesis

CVEN 5088	Master's Thesis	6
Total Hours		**6**

Professor

- Dr. Kartik Venkataraman

Associate professors

- Dr. Jun Xu
- Dr. Lynal Albert
- Dr. Rajesh Vuddandam
- Dr. Hoe-Gil Lee
- Dr. Abolghassem Zabihollah
- Dr. Anne Nichols

Assistant professors

- Dr. Alexandru Herescu
- Dr. Hongbo Du
- Dr. Shihao Huang

Courses

MEEN 5088. Master's Thesis. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 0 Hours).
Required each semester in which a student is working and receiving direction on a master's thesis in MEEN-MS. Minimum two semesters (6 hours) required for master's thesis option. Prerequisites: Graduate standing.

MEEN 5310. Advanced Solid Mechanics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Application of continuum mechanics to study the response of materials to different loading conditions; general principles common to all media such as conservation of mass, balance of linear momentum, conservation of momentum and energy; constitutive equations defining idealized materials for structural elements, mechanical energy considering stress and strain.

MEEN 5311. Finite Element Analysis: Theory and Practice. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Line, plane, solid, plate, and shell elements-theory; practical aspects of modeling; applications in mechanical engineering; final project.

MEEN 5320. Optimization of Engineering Systems. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Applications of optimization techniques to engineering design problems from a variety of fields, including aerospace, automotive, chemical, electrical, construction, and manufacturing; the focus is on using optimization techniques in a comprehensive manner, to enhance the creative process of conceptual and detailed design of engineering systems.

MEEN 5321. Lean Six Sigma. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A close examination of Lean Six Sigma tools and methodology, and its relationship to the engineering design, optimization, and validation processes for product development. Students will learn about translation of requirements, Taguchi's robust design solutions, and failure mode-effect analysis for design and processes.

MEEN 5325. Advanced Materials Engineering. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Structure-property relationship in engineering materials is discussed in this course. Material structure is investigated at all length scales from the electron level to the macro scale. Besides, this course covers atomic structure and bonding; microstructure properties; crystal structures; imperfections in solids; material strength and strengthening mechanisms; mechanical, thermal, electrical, magnetic, and optical properties. Differences in properties of metals, polymers, ceramics, and composite materials in terms of bonding and crystal structure.

MEEN 5330. Mechanics of Viscous Flow. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The mechanics of Newtonian viscous fluids. The use of modern analytical techniques to obtain solutions for flows with small and large Reynolds numbers, particularly in the areas of boundary layer theory, laminar flows, and turbulent flows.

MEEN 5331. Computational Methods for Fluid Mechanics and Heat Transfer. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Numerical methods for solving Navier-Stokes equations in complex geometries, including theory, implementation, and applications.

MEEN 5332. Advanced heat transfer. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
General problems of heat transfer by conduction, convection, and radiation; solution by the analog and numerical methods, thermal boundary layers, analysis of heat exchanges; problems on thermal radiation.

MEEN 5333. Advanced Engineering Thermodynamics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Concepts and laws of thermodynamics, including energy, entropy, and energy analysis, property relations, equilibrium conditions, and evaluation of properties; advanced special topics such as kinetic theory, statistical thermodynamics, radiation, and photovoltaic energy conversion .

MEEN 5340. Advanced Energy Systems. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Advanced energy conversion technologies that are currently on the market or under development; tools used by professionals to design energy systems and to evaluate their performance; related concepts from thermodynamics, heat transfer, fluid mechanics, geophysics, and chemistry.

MEEN 5360. Introduction to Robotics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introduction to robotics through computational methods commonly used in this field; fundamentals of kinematics, dynamics, and control of robot manipulators, robotic vision, and sensing; mechanisms, actuators, sensors, controllers, and processors for engineering of mechanical manipulation; advanced concepts from mechanics, control theory, optimization, probabilistic inference, simulation, kinematics, and computer science.

MEEN 5390. Advanced Engineering Mathematics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Mathematical analysis techniques for the solution of engineering analysis problems and for the simulation of engineering systems; both continuous and discrete methods are covered; initial and boundary value problems for ordinary and partial differential equations.

College of Liberal & Fine Arts

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COLFA Mission Statement

The earliest academies advanced human knowledge through philosophy, critical thinking, and debate. Now, over two millennia later, these methods remain at the core of today's universities and in the curriculum of the College of Liberal and Fine Arts. We align ourselves with Tarleton State University's mission to provide an academically challenging education through exemplary teaching, significant research, and inspired creativity. To this end, the College mission is:

- To achieve the highest levels of academic rigor by challenging students to develop and employ higher-order thinking skills as they clearly and effectively communicate and debate their ideas with others;
- To support and enhance the student-centered mission of Tarleton State University through providing our students with a comprehensive general education curriculum of exceptional quality;
- To provide a globalized curriculum through study-abroad and study-away experiences, through interaction with many cultures, languages, and perspectives within and beyond America;
- To engage our quest for human knowledge through forward-thinking faculty research, publication, and student engagement as well as applied learning experiences beyond the classroom;
- To foster creative expression and artistic value through arts, performances, presentations, and activities;
- To encourage and prepare students to excel in their chosen professional fields and to contribute as leaders of integrity in human society;
- To integrate ourselves fully into our community, state and beyond through programming, service, cultural offerings, the arts, and global outreach.

Departments and Programs

- Department of Communication Studies (p. 108)
  - MA in Communication Studies
- Department of Criminal Justice (p. 99)
  - MCJ in Criminal Justice
- Department of English and Languages (p. 110)
  - MA in English
- Department of Performing Arts (p. 113)
  - MM in Music
- Department of Public Administration (p. 106)
  - MPA in Public Administration

School of Criminology, Criminal Justice, and Public Administration

School of Criminology, Criminal Justice, and Public Administration
College of Liberal and Fine Arts
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The School of Criminology, Criminal Justice, and Public Administration includes two academic departments, the Department of Criminal Justice and the Department of Public Administration. In addition, the School also houses four research institutes: the Institute for Predictive and Analytic Policing Science, the Institute for Homeland Security, Cyber Crime and International Criminal Justice Studies, the Institute for Criminal Justice Leadership and Public Policy, and the

Institute on Violence Against Women and Human Trafficking . The mission of the School of Criminology, Criminal Justice, and Public Administration is to provide students with a quality education through academic and leadership experiences, as well as to provide service to the community and profession through research and scholarship.

Degree programs offered within the School are listed below:

Department of Criminal Justice

Master's in Criminal Justice (MCJ)

Graduate Certificate in Crime Analysis

Graduate Certificate in Homeland Security

Department of Public Administration

Master's in Public Administration (MPA)

Department of Criminal Justice

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The Department of Criminal Justice offers a Master's in Criminal Justice and two Graduate Certificates at the Master's level.

Master of Criminal Justice

The Master of Criminal Justice prepares students for administrative positions in the police, corrections, juvenile, and judicial systems. The objectives of the program are based upon the assumption that criminal justice decision and policy making in society require broad academic experience, innovative thinking, understanding of the theoretical foundations of the field, knowledge of appropriate research methods, and principles of administration. The major focus is to demonstrate that criminal justice in the United States and the problems associated with crime and delinquency must be viewed within the context of the larger society rather than as an isolated system. The program includes analysis of the major elements within criminal justice as related elements in a system in which decisions regarding crime and justice in one sphere may have consequences in other spheres.

In addition to adhering to the graduate school's requirements to enter a graduate program at Tarleton State University, prospective students entering the Master's Program in Criminal Justice must submit (at the time of their general application to the Graduate College) 2 letters of reference to the Criminal Justice Program via email at cjmasters@tarleton.edu. Each applicant will be contacted for an interview and advising information.

Graduates are expected to be:

1. conversant with the theoretical and legal principles implicit in criminal justice administration;
2. knowledgeable about essential research contributions in the field;
3. capable of research analysis appropriate to the field; and
4. competent to assume administrative responsibilities involving decision making in one of the areas of criminal justice administration.

The Master of Criminal Justice degree may be completed online.

Criminal Justice Core Courses		
CRIJ 5300	Applied Data Analysis for Criminal Justice I	3
CRIJ 5301	Foundations of Criminological Theory	3
CRIJ 5310	The Criminal Justice System	3
CRIJ 5321	Management of Criminal Justice Personnel [1]	3
or CRIJ 5322	Advanced Criminal Justice Ethics	
or CRIJ 5330	Criminal Justice and Social Contexts	
CRIJ 5340	Legal Aspects of Criminal Justice Management	3
CRIJ 5398	Applied Research Design I	3
Total Hours		**18**

Professional Track Plan

CRIJ 5380	Capstone	3
Electives (Any three from the following or by advisement)		9
CRIJ 5315	Special Topics in Criminal Justice	
CRIJ 5317	Special Topics in Homeland Security	
CRIJ 5320	Policing	
CRIJ 5323	Organizational Communications in Criminal Justice	

CRIJ 5330	Criminal Justice and Social Contexts	
CRIJ 5349	Transnational Trafficking	
CRIJ 5351	Terrorism	
CRIJ 5352	Homeland Security	
CRIJ 5304	The American Judiciary	
CRIJ 5305	The Juvenile Justice System	
CRIJ 5308	Corrections	
CRIJ 5309	Victimology	
CRIJ 5316	Special Topics in Criminology	
CRIJ 5335	Crime, Individuals, and the Criminal Justice System	
CRIJ 5343	Grant Writing	
CRIJ 5353	Global Cyber-Security	
CRIJ 5360	Teaching Criminal Justice	
CRIJ 5363	Introduction to Crime Mapping	
CRIJ 5364	Introduction to Crime Analysis	
CRIJ 5365	Intersection of Domestic and Military Policing	
CRIJ 5366	Crime and Violence Prevention and Intervention	
CRIJ 5375	Executive Leadership	
CRIJ 5382	Seminar: Study Away/Study Abroad	
CRIJ 5390	Independent Study	
CRIJ 5399	Practicum, Field Problems, Internship	
ADRI 5341	Mediation-Methods of Dispute Resolution	
Total Hours		**12**

Thesis Track Plan

CRIJ 5097	Thesis (Students must take 2 semesters in order to fulfill the 6 hour requirement for graduation)	3
CRIJ 5097	Thesis	3
Electives (Any four of the following or by advisement)		12
CRIJ 5317	Special Topics in Homeland Security	
CRIJ 5320	Policing	
CRIJ 5321	Management of Criminal Justice Personnel	
CRIJ 5323	Organizational Communications in Criminal Justice	
CRIJ 5351	Terrorism	
CRIJ 5352	Homeland Security	
CRIJ 5353	Global Cyber-Security	
CRIJ 5304	The American Judiciary	
CRIJ 5360	Teaching Criminal Justice	
CRIJ 5363	Introduction to Crime Mapping	
CRIJ 5364	Introduction to Crime Analysis	
CRIJ 5365	Intersection of Domestic and Military Policing	
CRIJ 5375	Executive Leadership	
CRIJ 5305	The Juvenile Justice System	
ADRI 5341	Mediation-Methods of Dispute Resolution	
CRIJ 5308	Corrections	
CRIJ 5309	Victimology	
CRIJ 5315	Special Topics in Criminal Justice	
CRIJ 5316	Special Topics in Criminology	
CRIJ 5322	Advanced Criminal Justice Ethics (EAny four of the following or by advisement to total 12 hours)	
CRIJ 5330	Criminal Justice and Social Contexts	
CRIJ 5335	Crime, Individuals, and the Criminal Justice System	
CRIJ 5340	Legal Aspects of Criminal Justice Management	
CRIJ 5343	Grant Writing	
CRIJ 5344	Grant Management	
CRIJ 5345	Program Evaluation	
CRIJ 5346	Advanced Program Evaluation	
CRIJ 5349	Transnational Trafficking	
CRIJ 5366	Crime and Violence Prevention and Intervention	
CRIJ 5382	Seminar: Study Away/Study Abroad	
CRIJ 5390	Independent Study	
CRIJ 5399	Practicum, Field Problems, Internship	
Total Hours		**18**

Non-Thesis

Students on the non-thesis plan must complete CRIJ 5380 Capstone which requires demonstration of competency in a specialized area of criminal justice through the completion of a substantial research project incorporating independent study and critical analysis of the topic area. For further information, students should contact the graduate advisor.

Thesis

Students on the thesis plan are required to successfully defend both a thesis proposal and a final thesis. Students will choose a major professor to guide their thesis project.

Graduate Certificate in Alternative Dispute Resolution

Students in the Master's program may pursue a Certificate in Alternative Dispute Resolution as part of their degree plan. The Certificate is awarded on completion of the Master's degree.

Required Courses		9
ADRI 5341	Mediation-Methods of Dispute Resolution	
ADRI 5343	Advanced Mediation Strategies	
ADRI 5344	Effective Communication Skills for ADR Specialists	
Electives - Choose 1		3
ADRI 5345	Arbitration-Methods of Alternative Dispute Resolution	
ADRI 5346	Advanced Arbitration Theory and Methods	
ADRI 5347	Negotiations and Collective Bargaining	
ADRI 5384	Mediation Practicum/Internship	
Total Hours		**12**

Graduate Certificate in Crime Analysis

Students in the Master's program may pursue a Certificate in Crime Analysis as part of their degree plan. The Certificate is awarded on completion of the Master's degree.

CRIJ 5300	Applied Data Analysis for Criminal Justice I	3
CRIJ 5364	Introduction to Crime Analysis	3
CRIJ 5363	Introduction to Crime Mapping	3
CRIJ 5398	Applied Research Design I	3
Total Hours		**12**

Graduate Certificate in Homeland Security

Students in the Master's program may pursue a Certificate in Homeland Security as part of their degree plan. The Certificate is awarded on completion of the Master's degree.

Required Courses		6
CRIJ 5351	Terrorism	
CRIJ 5352	Homeland Security	
Electives - Choose 2		6
CRIJ 5353	Global Cyber-Security	
CRIJ 5317	Special Topics in Homeland Security	
CRIJ 5365	Intersection of Domestic and Military Policing	
CRIJ 5349	Transnational Trafficking	
Total Hours		**12**

Professors

- Semukhina, Olga
- Shelley, Tara
- Styron, Kelli

Associate professors

- Dobbs, Rhonda
- Hankhouse, Shannon
- Wang, Kevin

Assistant professors

- Keller , Tyler
- Bae, Junghwan
- Gecno, Leo
- Korotchenko, Stan
- McIntosh, Shantol
- Wilds, Katherine

Professional Associate Professor

- Rodriguez, Brittany

Instructor

- Sutton, Brittany

Professional Assistant Professor

- Heath, William 'Casey' Dr.
- McLaurin, Tiffany

Professional Full Professor

- Brown, Katherine

Courses

CRIJ 5086. Problems in Criminal Justice. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 0 Hours).
Independent reading, research, and discussion. Entry into this course will be arranged with the department head. Students may repeat this course for a total of 6 hours credit.

CRIJ 5097. Thesis. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 0 Hours).
The completion and defense of the Thesis. The student must be registered in thesis hours the semester in which he/she receives his/her master's degree. Students must enroll in thesis hours every semester (except summer) for at least 1 credit hour until graduation. Prerequisite: Approval of graduate program director.

CRIJ 5300. Applied Data Analysis for Criminal Justice I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of basic and advanced data analysis techniques, with an emphasis on applications to decision making and policy formulation in the criminal justice system. Prerequisite: CRIJ 5398.

CRIJ 5301. Foundations of Criminological Theory. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course includes an in-depth examination of major theoretical perspectives of crime and deviancy. Theories will be analyzed for their logical and empirical adequacy in light of what is known about the distribution of crime and deviant behavior. Theories of criminality will be explained from a social historical basis, emphasizing that all theories are the product of their times and must be viewed within that context.

CRIJ 5304. The American Judiciary. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A critical evaluation of the role courts play in the American criminal justice system. Emphasis will be placed on the comparative responsibilities of the state court systems and the federal district, Circuit Court of Appeals, and U.S. Supreme Court systems. Special courts (Tax, Maritime, Municipal) will also be covered.

CRIJ 5305. The Juvenile Justice System. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A critical analysis of the policies and practices of the juvenile justice system.

CRIJ 5308. Corrections. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A critical analysis of the issues, problems, trends, and prospects faced by the administration of the American correctional system to include the impact of legal and social change on the correctional agencies and an evaluation of current research in the field.

CRIJ 5309. Victimology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course introduces students to the field of victimology. General topics covered in this course will include, but are not limited to: an analysis of the characteristics of crime victims; victim reporting and non-reporting patterns; the treatment of victims by the various segments of the criminal justice system; victim assistance programs; and the issue of compensation and/or restitution for victims of crime.

CRIJ 5310. The Criminal Justice System. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introduction to master's level studies in criminal justice. This course includes a systems approach to the study of criminal justice and the interrelationships of the various system components. The social and political issues related to the criminal justice system are examined in depth. Other topics include academic journals and their role in academic and field practice, graduate level writing skills including APA formatting, and the role of academic and professional organizations in master's level education. This course should be taken during the student's first semester in the master's program and not later than completion of nine hours of master's level work.

CRIJ 5315. Special Topics in Criminal Justice. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Study of selected topic(s) directly related to criminal justice. May be repeated for credit as topic varies. (Course will be offered not more than one semester each year.).

CRIJ 5316. Special Topics in Criminology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Study of selected topic(s) directly related to criminology. May be repeated for credit as topic varies (Course will be offered not more than one semester each year).

CRIJ 5317. Special Topics in Homeland Security. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Study of selected topics within the field of homeland security. May be repeated for credit when the topics vary.

CRIJ 5320. Policing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An in depth study of the philosophical, operational, and social aspects of law enforcement.

CRIJ 5321. Management of Criminal Justice Personnel. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An investigation of the personnel decision-making process used within criminal justice agencies. Areas to be investigated include recruitment, training, continuing education requirements, performance evaluation, fair employment practices, termination, and allocation of personnel.

CRIJ 5322. Advanced Criminal Justice Ethics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course covers the practical implications of moral philosophy and ethics in a free society during the day-to-day administration of a criminal justice agency will be discussed.

CRIJ 5323. Organizational Communications in Criminal Justice. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is an introduction to the study of internal and external organizational communication. Students will study organizational communication both within and between criminal justice agencies. Students will also examine organizational communication between criminal justice agencies and the public and will develop an understanding of the importance of the media in public presentations.

CRIJ 5330. Criminal Justice and Social Contexts. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines the complex interrelations of crime, justice, and social structures in a free society. It explores how criminal justice policies interact with various social conditions and presents theories of justice in terms of their influence on crime and the administration of justice.

CRIJ 5335. Crime, Individuals, and the Criminal Justice System. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides an overview of issues related to women as victims, offenders, and professionals in the criminal justice system.

CRIJ 5340. Legal Aspects of Criminal Justice Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A consideration of the major legal issues in criminal justice management to include civil liability, employment law, civil rights lawsuits and criminal investigations, training, media, Internal Affairs investigations, Federal Consent Decrees, and protection of inmates' rights. Emphasis is on the possible liabilities of managers and agencies for failure to adhere to legal requirements.

CRIJ 5343. Grant Writing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to provide students with the knowledge and skills to perform one of the most critical functions for any public or nonprofit sector agency today: gaining funds through proposals. Students learn how to find a funding source among various public and private sources and how to plan and write a proposal.

CRIJ 5344. Grant Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Designed for grant management for public agencies and nonprofit organizations. Understanding budget development, accepting and managing grant and contract awards, grants-management system(s), reporting, record keeping, and accountability, audit requirements, ethics in the grants environment, and program evaluation.

CRIJ 5345. Program Evaluation. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Describes the theory and methodology for the design of social research and demonstration projects and the application of analytic and statistical methods for evaluating public programs. Focus is on the application of evaluation methods and techniques of data interpretation. Report preparation is emphasized.

CRIJ 5346. Advanced Program Evaluation. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
In this course, students will design and carry out an evaluation of a program that incorporates current evaluation methods and principles derived from research, theory, practice wisdom, and their own experience. These occur within a field placement agency or their own workplace agency. Prerequisite: CRIJ 4345 Program Evaluation.

CRIJ 5349. Transnational Trafficking. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will examine transnational trafficking issues such as human trafficking, drug trafficking, illegal arms trafficking, and other trafficking of illicit substances. The course will explore: key theories, domestic and international policy, enforcement strategies and the role of non-governmental organizations.

CRIJ 5351. Terrorism. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines the origins, nature, and operational characteristics of terrorist groups. Students are exposed to topics ranging from the definition of "terrorism" to the unique characteristics of terrorist cells in the United States and abroad. Particular emphasis is on historical and contemporary terrorist attacks against the United States.

CRIJ 5352. Homeland Security. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines principles and practices associated with the emerging discipline of homeland security, including key policies, directives, national plans, and legislation that shape and homeland security. Topics include legal aspects of Homeland Security, inter-agency cooperation from a legal and operational basis, preparation for and management of mass casualty events including natural and man-made disasters and terrorism, and the special investigative problems of terrorism and man-made disasters.

CRIJ 5353. Global Cyber-Security. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The course presents a conceptual overview of information security and its impact on the global stage. Topics include: current trends and over all landscape in information warfare, cybercrime techniques, cyber-terrorism, and information security fundamentals. Included is an emphasis on policy implications for law enforcement at the national level.

CRIJ 5354. Introduction to Digital Forensics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course focuses on the study of digital and computer forensic evidence, search and seizure, chain of custody, and digital storage devices.

CRIJ 5355. Cellular Forensics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of collection and preservation of digital evidence derived from cellular technologies in a laboratory environment. This study will include the use of hardware and software needed to perform cellular and mobile device forensic investigations including MPE+ and associated connectivity kits. Prerequisite: CRIJ 5354.

CRIJ 5356. Digital Forensics Analysis. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of evidence collection through a laboratory environment. The course presents students with the working knowledge of the collection, preservation, presentation, and reporting of evidence obtained in a digital investigation. The topics also include encryption techniques and common issues with storage mediums. The course will make use of industry standard software including EnCase and FTK. Prerequisite: CRIJ 5353.

CRIJ 5360. Teaching Criminal Justice. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is an introduction to basic college level teaching, method and practice. Course content will include course development, instructional delivery in traditional and non-traditional formats, testing and other assessment techniques, and classroom management.

CRIJ 5363. Introduction to Crime Mapping. 3 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
This course provides the conceptual knowledge and practical skills to design and implement GIS based analysis of community crime problems. This course introduces major approaches to spatial analysis of crime and teaches students how to make effective crime maps.

CRIJ 5364. Introduction to Crime Analysis. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides advanced skills needed for efficient data management of crime-related data. Students learn how to extract, convert, manipulate and query large datasets to accomplish data-driven management and support intelligence-led policing. No prerequisites.

CRIJ 5365. Intersection of Domestic and Military Policing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines and compares domestic and military policing approaches. The course will focus on a comparative study through an examination of domestic American policing strategies, American military policing, and foreign policing strategies (both domestic and military-based). This course will include an examination of organizational theory as it applies to domestic and military policing.

CRIJ 5366. Crime and Violence Prevention and Intervention. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines crime prevention and intervention as a potential alternative or complement to traditional criminal justice system responses to crime. Drawing on major theories and research pertinent to crime and violence, including characteristics of violence and relevant risk factors, reporting and treatment protocols, and current/potential intervention efforts and prevention initiatives; emphasis is on interdisciplinary contributions to violence prevention and control. Prerequisite: CRIJ 5301.

CRIJ 5375. Executive Leadership. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course covers the governing principles of organizational leadership within criminal justice and related organizations. Topics will include leadership theory, ethics of leadership, and the role of leadership in garnering public trust.

CRIJ 5380. Capstone. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Demonstration of competency in a specialized area of criminal justice through the completion of a substantial research project incorporating independent study and critical analysis of the topic area. Prerequisite: Departmental permission is required.

CRIJ 5382. Seminar: Study Away/Study Abroad. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The course subject will vary in topics dependent upon the location of travel and subject material offered in the course. The study away occurs when students travel outside of Texas, but remain within the United States. Study abroad involves travel outside of the United States. Students will need to obtain all necessary travel documents, including appropriate passport, prior to the travel date.

CRIJ 5390. Independent Study. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Specific topic and contents of the course will be determined by the student in consultation with the instructor, with whom the student meets regularly for supervision of the study. May be repeated to a maximum of six semester hours. Permission of the graduate advisor required. Prerequisites: Instructor permission.

CRIJ 5398. Applied Research Design I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of the qualitative and quantitative research skills necessary for informed decision making, policy analysis, program evaluation, and hypothesis testing as applied to criminal justice practice. Includes a review and critique of research techniques applied to crime causation, law enforcement, corrections, and courts. Emphasis will be place on quantitative research methods.

CRIJ 5399. Practicum, Field Problems, Internship. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Supervised professional activities in public service professions. Major emphasis is placed on the student's involvement in successful practices in the area of professional interest. Field experience fee $50.

CRIJ 6088. Dissertation. 1-9 Credit Hours (Lecture: 1-9 Hours, Lab: 0 Hours).
Scheduled when the student is ready to begin the thorough and scholarly investigation of a topic acceptable to the dissertation committee. The dissertation must provide evidence that the candidate has pursued a coherent program of research related to the student's area(s) of academic specialization, the results of which reveal academic excellence and which make an original contribution to the discipline. Graded on a satisfactory (S) or unsatisfactory (U) basis. Course may be repeated as necessary, but credit will not be awarded for more than 9 credit hours. Prerequisite: Doctoral Standing and successful completion of the doctoral qualifying examination.

CRIJ 6091. Comprehensive Doctoral Examination. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 0 Hours).
During this course the student will prepare and complete the doctoral comprehensive examinations.

CRIJ 6191. Comprehensive Doctoral Examination. 1 Credit Hour (Lecture: 1 Hour, Lab: 0 Hours).
During this course the student will prepare and complete the doctoral comprehensive examinations. Prerequisite: Approval of the doctoral coordinator with the advice of doctoral faculty.

CRIJ 6300. Statistical Methods for Criminal Justice I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of basic and advanced descriptive and inferential statistics, with an emphasis on applications in the criminal justice system. Prerequisite: CRIJ 6398.

CRIJ 6301. Foundations of Criminological Theory. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
In-depth examination of major theoretical perspectives of crime and deviancy. Theories will be analyzed for their logical and empirical adequacy in light of what is known about the distribution of crime and deviant behavior.

CRIJ 6302. Statistical Methods for Criminal Justice II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is an advanced study of techniques of inferential statistics as applied to research in crime and criminal justice. This course will include correlation, regression, multivariate regression, and advanced regression analysis techniques for scholarly and evaluative research. Prerequisite: CRIJ 6300.

CRIJ 6303. Advanced Criminological Theory. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
In-depth examination of contemporary theoretical perspectives of crime and deviancy. Theories will be analyzed for their logical and empirical adequacy in light of what is known about the distribution of crime and deviant behavior. Emphasis will be placed on integrated theories and theory construction. Prerequisite: CRIJ 6301.

CRIJ 6304. The American Judiciary. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A critical evaluation of the role courts play in the American criminal justice system. Topics include the structure, function, and operations of the courts at the state and federal level.

CRIJ 6305. Statistical Methods for Criminal Justice III. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is a continuation of advanced inferential statistics applied to research in crime and criminal justice. The course goes beyond the study of linear multivariate regression, and can include but not limited to the structural equation modeling, hierarchical linear modeling, and time series analysis as well as any other advanced statistical techniques needed for scholarly and evaluative research not covered in other courses. Prerequisite: CRIJ 6302.

CRIJ 6308. Corrections. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A critical analysis of the issues, problems, trends, and prospects faced by the administration of the American correctional system to include the impact of legal and social change on the correctional agencies and an evaluation of current research in the field.

CRIJ 6309. Victimology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course introduces students to the field of victimology. General topics covered in this course will include, but are not limited to: an analysis of the characteristics of crime victims; victim reporting and non-reporting patterns; the treatment of victims by the various segments of the criminal justice system; victim assistance programs; and the issue of compensation and/or restitution for victims of crime.

CRIJ 6310. The Criminal Justice System. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the criminal justice system in the United States. This course includes a systems approach to the study of criminal justice and the interrelationships of the various components. The social and political issues related to the criminal justice system are examined in depth.

CRIJ 6315. Special Topics in Criminal Justice. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Study of selected topic(s) directly related to criminal justice. May be repeated for credit as topic varies.

CRIJ 6316. Special Topics in Criminology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Study of selected topic(s) directly related to criminology. May be repeated for credit as topic varies. This course may be repeated for a maximum credit of up to 9 hours.

CRIJ 6321. Management of Criminal Justice Personnel. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An investigation of the personnel decision-making process used within criminal justice agencies. Areas to be investigated include recruitment, training, continuing education requirements, performance evaluation, fair employment practices, termination, and allocation of personnel.

CRIJ 6322. Advanced Criminal Justice Ethics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The practical implications of moral philosophy and ethics in a free society during the day-to-day administration of a criminal justice agency will be discussed.

CRIJ 6323. Organizational Communication in Criminal Justice. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is an introduction to the study of internal and external organizational communication. Students will study organizational communication both within and between criminal justice agencies. Students will also examine organizational communication between criminal justice agencies and the public and will develop an understanding of the importance of the media in public presentations.

CRIJ 6330. Criminal Justice and Social Contexts. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines the complex interrelations of crime, justice, and social structures in a free society. It explores how criminal justice policies interact with various social conditions and presents theories of justice in terms of their influence on crime and the administration of justice.

CRIJ 6335. Crime, Individuals, and the Criminal Justice System. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides an overview of issues related to women as victims, offenders, and professionals in the criminal justice system.

CRIJ 6340. Legal Aspects of Criminal Justice Administration. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A consideration of the major legal issues of criminal justice management and the effect of constitutional provisions, statutes, ordinances, and judicial decisions in justice administrations. A discussion of the legal aspects of selection, promotion, assignment, and termination of justice employees. Emphasis is on the possible liabilities of managers and agencies for failure to adhere to legal requirements.

CRIJ 6342. Crime and Public Policy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An examination of the process by which criminal justice policies are implemented at the local, state, and federal levels. Attention will be given to the impact of public opinion, the media, and politics on policy creation and the challenge of developing effective crime control policies.

CRIJ 6349. Transnational Trafficking. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will examine transnational trafficking issues such as human trafficking, drug trafficking, illegal arms trafficking, and other trafficking of illicit substances. The course will explore: key theories, domestic and international policy, enforcement strategies and the role of non-governmental organizations.

CRIJ 6350. Comparative Criminal Justice Systems. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course surveys the criminal justice system and its institutions comparatively across the world to give students a global perspective of the similarities and differences of different criminal justice systems.

CRIJ 6351. Terrorism. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines the origins, nature, and operational characteristics of terrorist groups. Students are exposed to topics ranging from the definition of "terrorism" to the unique characteristics of terrorist cells in the United States and abroad. Particular emphasis is on historical and contemporary terrorist attacks against the United States.

CRIJ 6352. Homeland Security. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines principles and practices associated with the emerging discipline of homeland security, including key policies, directives, national plans, and legislation that shape and homeland security.

CRIJ 6353. Global Cyber-Security. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The course presents a conceptual overview of information security and its impact on the global stage. Topics include: current trends and over all landscape in information warfare, cybercrime techniques, cyber-terrorism, and information security fundamentals. Included is an emphasis on policy implications for law enforcement at the national level.

CRIJ 6354. Introduction to Digital Forensics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course focuses on the study of digital and computer forensic evidence, search and seizure, chain of custody, and digital storage devices. Included in the applied learning experience is the exposure to various software and hardware solutions for the collection of evidence as guided by current US Law Enforcement agencies.

CRIJ 6355. Cellular Forensics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of collection and preservation of digital evidence derived from cellular technologies in a laboratory environment. This study will include the use of hardware and software needed to perform cellular and mobile device forensic investigations including MPE+ and associated connectivity kits. Prerequisite: CRIJ 6353.

CRIJ 6356. Digital Forensics Analysis. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of evidence collection through a laboratory environment. The course presents students with the working knowledge of the collection, preservation, presentation, and reporting of evidence obtained in a digital investigation. The topics also include encryption techniques and common issues with storage mediums. The course will make use of industry standard software including EnCase and FTK. Prerequisite: CRIJ 6353.

CRIJ 6360. Evaluation Research. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course covers the application of criminal justice research methods to develop and/or evaluate or assess a program or policy. Topics include conceptual, methodological, bureaucratic, political, and organization factors in the evaluation process as well as specific program evaluation research techniques.

CRIJ 6361. Communities and Crime. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Provides students with an overview of issues related to communities and crime. Examines community context, behavior, and functioning, and how communities are implicated in both crime-generating and crime-preventing processes. Familiarizes students with historical and contemporary literature surrounding the communities and crime relationship.

CRIJ 6362. Current Issues in Law Enforcement. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
In-depth analysis of historical, current, and future issues in law enforcement. Emphasis will be placed on the role of police in society, police-citizen relationships, and empirical evaluations of police effectiveness, police behavior, and programs and strategies.

CRIJ 6363. Forecasting and Data Analysis. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is an overview of that analytic methods used in forecasting and predictive policing.

CRIJ 6364. Introduction to Crime Analysis. 3 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
This course provides advanced skills needed for efficient data management of crime-related data. Students learn how to extract, convert, manipulate and query large datasets to accomplish data-driven management and support intelligence-led policing. Several data management applications are examined including MS Excel and Access.

CRIJ 6365. Intersections of Domestic and Military Policing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines and compares domestic and military policing approaches. The course will focus on a comparative study through an examination of domestic American policing strategies, American military policing, and foreign policing strategies (both domestic and military-based). This course will include an examination of organizational theory as it applies to domestic and military policing.

CRIJ 6366. Crime and Violence Prevention and Intervention. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines crime prevention and intervention as a potential alternative or complement to traditional criminal justice system responses to crime. Drawing on major theories and research pertinent to crime and violence, including characteristics of violence and relevant risk factors, reporting and treatment protocols, and current/potential intervention efforts and prevention initiatives; emphasis is on interdisciplinary contributions to violence prevention and control. Prerequisite: CRIJ 6301.

CRIJ 6367. Predictive Policing Seminar. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of predictive policing methods, approaches, implementation and legal issues associated with them. At the end of the course, successful students will: gain a basic understanding of major predictive technology on forecasting crimes, places and individuals involved in criminal offending; be able to discuss major steps, advantages and disadvantages in implementing selective methods of predictive policing in a law enforcement organization; explain legal, ethical and sociological ramifications of implementing methods of predictive policing; and discuss public policy decision-making process as it relates to predictive policing implementation.

CRIJ 6370. Legal Aspects of Evidence. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An exploration of the procedural and substantive rules regarding evidence in criminal proceedings. Topics may include the admission and exclusion of evidence, burden of proof, and best evidence rules.

CRIJ 6371. Forensic Expert Testimony. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course considers the role of criminal justice professions in provide expert testimony in court. Topics covered will include the ethics of testimony, qualifications for testimony, presentation of evidence and opinion, as well as behavioral aspects of testifying.

CRIJ 6372. Law and Forensic Science. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An analysis of the intersection of science and the law with an emphasis on the law affecting forensic science in the criminal justice system. Topics may include the role of experts in both criminal and civil law, ethical issues related to forensic evidence, and wrongful convictions.

CRIJ 6375. Executive Leadership. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course covers the governing principles of organizational leadership within criminal justice and related organizations. Topics will include leadership theory, ethics of leadership, and the role of leadership in garnering public trust.

CRIJ 6380. Proseminar in Criminology and Criminal Justice. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides students with a broad overview of important topics and contemporary issues in criminal justice. This course explores the history and role of criminal justice as an academic discipline and as an institutional system in American society. Particular emphasis is given to acquainting students with the research strengths of the department, individual faculty members' research agendas, and identifying and coordinating potential opportunities for joint research and scholarship among faculty and students.

CRIJ 6381. Supervised Teaching. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A practicum with the student in teaching, guided by an experienced teacher with whom the student meets from time to time for discussion of readings and classroom experiences. This course is an introduction to basic college level teaching methods. Course content will include methods of instruction, testing and other assessment techniques, use of technology, classroom management, and course development.

CRIJ 6382. Academic Scholarship and Communication. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides students with the key training needed to engage in the professional activities central to a successful scholarly career in criminology. Emphasis will be placed on preparation of a research project for submission for presentation at a professional conference and submission for publication. Prerequisite: Permission of graduate advisor.

CRIJ 6389. Comprehensive Exam Review. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course focuses on refining essential skills and practices for taking the comprehensive examination. This course is designed as a structured review of key concepts and skill sets that have been covered in the program and may be applicable to the comprehensive examination.

CRIJ 6390. Independent Study. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Specific topic and contents of the course will be determined by the student in consultation with the instructor, with whom the student meets regularly for supervision of the study. May be repeated to a maximum of six semester hours. Prerequisite: Permission of the instructor.

CRIJ 6396. Survey Research Methods. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The course will provide a comprehensive review of survey research methods, and prepare students in the fundamental skill areas necessary to design and conduct quality survey research projects for theory driven or applied research. These areas include: survey method design; sampling strategies and power analysis; questionnaire construction; survey administration/data collection; calculation of response, cooperation, refusal, and contact rates; data coding and entry; verification and quality control; and sources of error in survey research.

CRIJ 6397. Research Design and Analysis. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course includes an overview of descriptive, inferential, and multivariate statistics employed in criminal justice research and an overview of methods of criminological and criminal justice research, with emphasis on research ethics, research design, and methods of data analysis. Prerequisite: n/a.

CRIJ 6398. Research Methods I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of scientific research methods used in the criminal justice system. Includes a review and critique of research on crime causation, law enforcement, courts, and corrections. Emphasis will be place on quantitative research methods.

CRIJ 6399. Research Methods II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will familiarize students with the nature and utility of qualitative, quantitative, and mixed methods research as applicable various areas of criminological studies. Topics may include field work, interviews, and content analysis as well as a range of quantitative and mixed methods. Prerequisite: CRIJ 6398.

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Master of Public Administration

The MPA is offered as a thesis or non-thesis track program. This interdisciplinary program is designed to offer students a broad-based educational experience in the public administration field.

MAPA Core Courses		
MAPA 5300	Public Administration	3
MAPA 5301	Organizational Behavior in the Public Sector	3
MAPA 5302	Human Resource Management in the Public Sector	3
MAPA 5315	Budgeting and Financial Management for Public and Nonprofit Organizations	3
MAPA 5322	Ethics in Public Service	3
MAPA 5331	Public Policy Formulation and Analysis	3
MAPA 5350	Public Administration Capstone	3
MAPA 5398	Research Methods in Public Administration	3
Total Hours		**24**

Non-Thesis Track

MAPA Electives		12

Thesis Track

MAPA 5088	Thesis	3
MAPA 5088	Thesis	3
Total Hours		**6**

Courses

MAPA 5088. Thesis. 1-6 Credit Hours (Lecture: 1-6 Hours, Lab: 0 Hours).
Scheduled when the student is ready to begin the thorough and scholarly investigation of a topic acceptable to the thesis committee. The thesis must provide evidence that the candidate has pursued a coherent program of research related to the student's area(s) of specialization, the results of which reveal academic excellence and which make an original contribution to the discipline. Prerequisite: Student must successfully complete the MPA comprehensive examinations and all preliminary coursework. Project must have approval of major professor.

MAPA 5300. Public Administration. 3 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
This is an introductory, survey course designed to give students an understanding of public administration as a scientific discipline applied to professional practice within the context of American government at the local, state and federal level. Topics include a master's level survey of the major theories of public administration and governance, interagency and intergovernmental relations, agency reform, ethics of public service, organizational dynamics and behavior, human resource issues, and public budgeting and finance.

MAPA 5301. Organizational Behavior in the Public Sector. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Behavioral theory in organizational context for the public sector. A study of individual and group dynamics in the business environments. Specific emphasis is given to leadership, motivation, communication, employee supervision, and morale in all organizational settings.

MAPA 5302. Human Resource Management in the Public Sector. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Presents the fundamental principles and techniques of personnel management and examines the management of human resources from the point of view of the personnel officer, the operational manager and the employee for the public sector. Examines the responsibilities of organizational leadership for incorporating human resource issues in strategic planning and initiatives. Emphasis is placed on current legal considerations, issues and research.

MAPA 5303. Public Sector and Non-Profit Marketing and Communication. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will examine the role and application of marketing in public and nonprofit settings. The course focuses on a conceptual understanding of the marketing discipline and marketing processes and shows how basic concepts and principles of marketing are applicable to public and nonprofit organizations.

MAPA 5304. Legal Aspects for Public Managers. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A critical evaluation of the role courts play in American public administration. Topics include the structure, function, and operations of the courts at the state and federal level.

MAPA 5307. Statistical Methods. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of basic and advanced descriptive and inferential statistics, with an emphasis on applications in public administration. Credit will not be awarded for both MAPA 5307 and CRIJ 5300. Prerequisite: MAPA 5398 or CRIJ 5398.

MAPA 5310. Introduction to Public Administration. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An overview of the history and intellectual foundation of public administration including the major ideas, developments, theories, concepts, and contributors to the growth of public administration and its practice in the United States. Credit will not be given for both MAPA 5300 and MAPA 5310.

MAPA 5311. Intergovernmental Relations. 3 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
This course is a study of the interrelationship of local, state, and federal government entities with emphasis on intergovernmental relations on administration, planning, budgeting, and policy making.

MAPA 5315. Budgeting and Financial Management for Public and Nonprofit Organizations. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is a master's level introduction to the principles of planning, budgeting and budget administration as applied to the unique requirements of local, state, and federal government agencies. Although strongly based in budgeting theory, the major course goal is to provide students with the basic skills needed to effectively work as an effective team member with agency professionals and external consultants to create and administer public agency budgets.

MAPA 5320. Management and Strategic Planning for State and Municipal Government. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
State and local governments within the context of the American governmental system. Special emphasis on federalism, the constitutional/legal relationships between state and local governments, and the institutions, organizational forms, and political processes in American state and local government especially related evolving governance models, such as new public management, new public service and other models.

MAPA 5322. Ethics in Public Service. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course focuses on the moral and ethical issues surrounding public administration and governance in an environment of socially responsible public service. This course will expose students to the underlying themes that will prepare them for situations they are likely to confront in the field of public administration, which includes the non-profit and none-governmental organization (NGO) environments.

MAPA 5323. Program Evaluation and Assessment. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course aims to teach students the skills to conduct program evaluations and assessments, research efforts that determine if a public program is working as intended (processes) and achieving the objectives for which it was designed, goals known in program evaluation as outcomes. Students will learn the components of an evaluation, how to craft a logic model that illustrates the processes of a program and intended outcomes as well.

MAPA 5324. Effective Writing for Public Administrators. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The course is designed for students in public administration who want to communicate more effectively with a variety of audiences. The course aims to teach students the fundamentals of academic and professional writing and generally, to introduce students to the kinds of writing assignments they will encounter as graduate students in the program. The course will include short writing assignments in which students will learn to apply fundamental concepts of academic and professional writing that all professionals and scholars use, such as thesis statement, rationale, reasoning with evidence, and structure. Students will also learn strategies for critical reading and analyzing texts.

MAPA 5330. Advanced Public Budgeting and Financial Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is an in-depth study of the budgeting and financial management of government agencies. Topics include taxation, bonds, special issues in administering matching funds, grants and grant administration, revenue flow, contracts, and fiscal problems of local and state governments including maintenance of services during revenue shortfalls. Prerequisite: MAPA 5320 Public Budgeting and ACCT 5307 Governmental and Not-For-Profit Accounting or permission of instructor.

MAPA 5331. Public Policy Formulation and Analysis. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Course provides broad exposure to the fundamental tools of policy formulation, negotiation, implementation and analysis. While competitive markets are often efficient, there are many barriers to perfectly functioning markets, such as market failure(s), that lead to the need for public policy. Ultimately, the goal of the course is to lead students to appreciate the method of thought and processes associated with allocation of resources at their disposal as seems "best" to them — and how this method can be a widely useful tool for assessing the need for and impact of public policy.

MAPA 5340. Critical Incident Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is a graduate level introduction to crisis planning and management for mass casualty and high profile events. Topics include agency roles natural and man-made disasters, terrorism and other major criminal events, and other high profile incidents. Emphasis will be placed in inter-agency cooperation and interfacing in planning, event management, and long-term, post-event management.

MAPA 5343. Public Health Economics and Budgetary Policy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This three-credit graduate-level course provides an overview of the systems that define, structure, and influence health care budgeting and public funding in the United States. Students will examine historical, political, economic, and organizational factors shaping the U.S. health care system. Topics include public health budgeting, organizational structures, intergovernmental and multi-organizational networks, financing, access, quality improvement, cost containment, ethics, technology, communication, and leadership. The course emphasizes the administration of publicly funded programs such as the Affordable Care Act, Medicare, Medicaid, S-CHIP, and Tri-Care. Special attention is given to the role of government in funding and providing care, with a focus on budget processes, policy implementation, and the fiscal and economic impacts of public health care systems on communities.

MAPA 5345. Managing Critical Social Problems. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will provide students with an overview of the contemporary social issues and the role of government in management or mitigation of those issues. Topics include crime, employment, health care, neighborhood stability, gentrification and community regeneration, and their effects on community residents.

MAPA 5350. Public Administration Capstone. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course requires demonstration of competency in public management through completion of a substantial research project incorporating independent study and critical analysis of a specialized area of the field. This is the capstone course for the Master of Public Administration Program. Prerequisite: completion of all other course work required for the Master of Public Administration degree, including core courses and emphasis area courses, unless an exception is approved by the major professor.

MAPA 5363. Leadership in Public and Non-profit Organizations. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to help students understand how nonprofits and public organizations exercise leadership. Students will examine the theory, issues, and skills associated with leadership and management of nonprofit and public organizations. Students will also understand the concept of public ownership of non-profit organizations and how it imbues specific ethical and legal responsibilities beyond what is standard for private sector organizations.

MAPA 5370. Public Health Services Administration. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will provide graduate students an overview of the United States public health and healthcare system. This will be an introduction to a complex healthcare system that is currently undergoing systematic change. This is a discussion course in which text books, lectures, discussion, and outside reading will be used. Comparisons to health care systems in other countries will be made. At the conclusion of the course, students will have a comprehensive awareness of factual information, data, and statistics unique to the United States public health and healthcare delivery system. This is an advanced level graduate course.

MAPA 5380. Internship. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course gives students the opportunity to integrate the more theoretical aspects of their coursework with participant observation of the operations of a government agency closely related to the student's area of specialization. The experience will utilize a series of work assignments within the agency to give students a range of experiences to enhance their understanding of professional, public administration. Students will document their experience for presentation as determined through consultation with their major professor who will arrange placements with agency mentors. Prerequisite: Approval of major professor.

MAPA 5385. Seminar in Public Administration. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will allow for flexible topic choice related to current and future trends in public administration. Topics such as comparable and futures studies in public administration along with other evolving and emerging issues in public administration can be further explored via this course.

MAPA 5390. Independent Study. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This is an independent research course requiring development of a literature review. methodology, and/or data collection in collaboration with the supervising professor. Prerequisite: Approval of MPA graduate advisor.

MAPA 5398. Research Methods in Public Administration. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will introduce students to multiple research methods, specifically applied in the fields of public administration, in particular to public, non-profit and non-governmental organizations, and policy evaluation. This course will assist the student in understanding the role of research and evaluation in public programs. Credit will not be awarded for CRIJ 5398 and MAPA 5398.

Department of Communication Studies

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Mission Statement

Tarleton State's Master of Arts in Communication Studies empowers a diverse range of individuals, from seasoned professionals to recent graduates, fostering excellence in the dynamic communication environment. Our mission is to deliver a transformative, versatile program, emphasizing new technologies and social media strategies alongside traditional foundations. We cultivate a vibrant learning community, focusing on critical thinking, collaboration, and ethical communication. Graduates leave Tarleton well-prepared to lead organizational communication initiatives, utilizing social media, understanding theoretical approaches and effective strategies, and staying ahead in the evolving communication landscape. Rooted in flexibility and accessibility, our program instills innovation and adaptability, enabling graduates to excel as impactful leaders, shaping their organizations and the broader world.

Students who complete the degree requirements will also receive certificates in Organizational Communication and Social Media Strategy.

Master of Arts in Communication Studies Program Requirements

COMM 5304	Organizational Communication Theory	3
COMM 5310	New Communication Technology	3
COMM 5311	Social Media Campaigns	3
COMM 5313	Social Media Analytics	3
COMM 5320	Communication Ethics	3
COMM 5321	Communication Research Methods	3
COMM 5352	Communication Theory	3
Electives		9
Total Hours		**30**

In addition to the master's degree graduates will also receive certificates in Social Media and Organizational Communication.

Organizational Communication Certificate

COMM 5304	Organizational Communication Theory	3
COMM 5320	Communication Ethics	3
COMM 5352	Communication Theory	3
Total Hours		**9**

Social Media Certificate

COMM 5310	New Communication Technology	3
COMM 5311	Social Media Campaigns	3
COMM 5313	Social Media Analytics	3
Total Hours		**9**

Graduate Faculty

- Edwards, Jennifer
- Gearhart, Christopher
- Helvie-Mason, Lora
- Howard, Charles
- Maben, Sarah
- Stafford, Paul

Courses

COMM 5086. Special Problems. 1-6 Credit Hours (Lecture: 1-6 Hours, Lab: 0 Hours).
Conference course. Directed independent study under supervision of a senior faculty member.

COMM 5200. Communication Pedagogy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Students will explore teaching and learning strategies for higher education courses in communication. Students will learn lesson planning, classroom management, contemporary teaching strategies, and methods for assessing learning outcomes. Some course elements will also focus on teaching social media for collegiate and professional settings.

COMM 5303. Communication Pedagogy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Students will explore teaching and learning strategies for higher education courses in communication. Students will learn lesson planning, classroom management, contemporary teaching strategies, and methods for assessing learning outcomes. Some course elements will also focus on teaching social media for collegiate and professional settings.

COMM 5304. Organizational Communication Theory. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is an advanced study of communication as it takes place in business, industrial, and non-profit settings. Special attention is given to managerial communication, communicator styles, channels and networks, and organizational communication consulting.

COMM 5310. New Communication Technology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This graduate course provides a historical foundation focused on new communication technology. This course also incorporates communication theories while focusing on the benefits and disadvantages of new communication technology. Students will also explore the ways these technologies are positively and negatively influenced by national/international: cultures, economies, intellectual capital, and politics.

COMM 5311. Social Media Campaigns. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This graduate course is designed to introduce students to key concepts of social networking websites/applications, enable students to interact with others through hands-on experiences on social networking websites/applications, and provide students with experiences to critically analyze the positive and negative aspects of communicating (interpersonal, small group, organizational, etc.) with others through social networking.

COMM 5312. Computer-Mediated Communication. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This graduate course in provides a historical and futuristic perspective on the creation of the internet and computer-mediated communication. Students in the course will examine and critique scholarly research articles focused on a variety of computer-mediated communication contexts (i.e. - blogs, social networking websites, video chat, etc.).

COMM 5313. Social Media Analytics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This graduate course is designed to introduce students to key concepts of measurement of social networking websites/applications and web analytics. The course will enable students to interact with actual measurement techniques for social networking websites/applications, and provide students with experiences to critically analyze social networking. This course explores how basic statistics can be used to answer questions about social media outlets posed by a business or user.

COMM 5314. Generative Artificial Intelligence (AI) in Communication. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This graduate course provides a foundational look at generative artificial intelligence in the communication field. It includes historical and futuristic perspectives on generative artificial intelligence (AI) in the communication landscape. Students will examine applications of generative AI in organizational and interpersonal communication, ranging from large language models, chatbots, audio and visual systems, and various multi-media tools. Students will explore the ethical and societal implications of adapting and evolving technological advances in communication.

COMM 5320. Communication Ethics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This graduate course provides perspectives on communication ethics, from historical underpinnings to theory to professional ethical codes to decision-making structures weighing values, principles and stakeholders. Students in the course will examine and critique ethical factors and decision-making with communication case studies.

COMM 5321. Communication Research Methods. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This graduate course is a study of the two primary metatheoretical perspectives, the scientific and interpretive, and the assumptions, values, and methods associated with each. Strong emphasis is given to understanding and applying a variety of research methodologies to selected topics of study. Research methods such as surveys, interviewing, experiments, ethnography, and others may be covered.

COMM 5323. Small Group Communication. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This advanced course explores the concepts, models, and theories of group interaction and teamwork as it applies to group communication. Special attention is paid to the processes of decision-making and problem solving within organizational groups as well as examining case studies of group processes and outcomes.

COMM 5340. Environmental Communication. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course focuses on the role human communication plays in creating and sustaining relationships with nature. Topics can include Public Participation, Environmental Conflict, promoting environmental sustainability, etc. Students in this courses will be exposed to a variety of research methods and perspectives on environmental policy topics which will include; public participation in environmental decision-making, communication in environmental conflict, environmental risk communication, and communication in environmental advocacy. Prerequisite: Graduate standing.

COMM 5352. Communication Theory. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is an advanced study of communication theory exploring the concepts, models, and theories of human communication. Prerequisite: Graduate Standing.

COMM 5385. Special Topics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Content varies according to the needs and desires of the students. When topic varies, course may be taken for credit more than once. Open to students of graduate classification.

COMM 6304. Organizational Communication Theory. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is an advanced study of communication as it takes place in business, industrial, and non-profit settings. Special attention is given to managerial communication, communicator styles, channels and networks, and organizational communication consulting. Credit will not be awarded for both COMM 5304 and COMM 6304.

COMM 6311. Social Media Campaigns. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This graduate course is designed to introduce students to key concepts of social networking websites/applications, enable students to interact with others through hands-on experiences on social networking websites/applications, and provide students with experiences to critically analyze the positive and negative aspects of communicating (interpersonal, small group, organizational, etc.) with others through social networking. Credit will not be awarded for both COMM 5311 and COMM 6311.

COMM 6312. Computer-Mediated Communication. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This graduate course provides a historical and futuristic perspective on the creation of the internet and computer-mediated communication. Students in the course will examine and critique scholarly research articles focused on a variety of computer-mediated communication contexts (i.e. - blogs, social networking websites, video chat, etc.).

COMM 6340. Environmental Communication. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course focuses on the role human communication plays in creating and sustaining relationships with nature. Topics can include Public Participation, Environmental Conflict, promoting environmental sustainability, etc. Students in this courses will be exposed to a variety of research methods and perspectives on environmental policy topics which will include; public participation in environmental decision-making, communication in environmental conflict, environmental risk communication, and communication in environmental advocacy.

Department of English and Languages

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Master of Arts in English

Graduate studies in English are designed to continue, enrich, and enhance education in literature, rhetoric, professional communication, and language. The Department of English and Languages offers the Master of Arts with a choice of concentrations in either Literature or Professional Writing and Rhetoric, both of which include a thesis and a non-thesis track. The Literature concentration is primarily designed for students planning to continue careers in education, including the teaching of dual-credit high school/college courses and the pursuit of doctoral studies in English. This concentration also prepares students for careers in writing and publishing. The Professional Writing and Rhetoric concentration is primarily focused towards students preparing for careers in the fields of technical and professional writing. Students should choose between these two concentrations according to their individual needs and goals.

To gain full admission to a master's program in English, students should have an undergraduate major in English and a minimum of 12 undergraduate hours (or the equivalent) in one foreign language. Those who lack the necessary background will be required to complete appropriate undergraduate leveling work. The departmental graduate admissions committee reviews transcripts and determines the nature and amount of leveling required. Students should take no more than six hours of graduate classes before completing leveling requirements.

Prospective students entering the Master's Program in English must submit (at the time of their general application to the College of Graduate Studies) to the English Department the following: a 10-15-page MLA, APA, or LSA scholarly research paper and three letters of recommendation. A minimum GPA of 2.75 during the student's last 60 hours of undergraduate course work is required for admission to the program.

The Director of Graduate Studies in English will assist students in choosing a concentration, selecting courses, establishing a graduate committee, and deciding between the thesis and non-thesis tracks. Once the student has selected a committee made up of three departmental graduate faculty members, the committee head will serve as the student's graduate advisor. The advisor will assist the student in developing a degree plan and will oversee the thesis (for thesis track) or directed reading (for non-thesis track). Students choosing the thesis track must also receive approval from the graduate admissions committee.

Master of Arts in English Program Requirements

ENGL 5086	Special Problems (Directed Readings)	3
Total Hours		**3**

Literature

THESIS Track		
ENGL 5088	Thesis	1-6
ENGL 5398	Methods of Bibliography and Research Analysis	3
or ENGL 5396	Digital Humanities	
American Literature		3
British Literature		3
Advised Electives (5000 Level) from Literature, Technical Communication, Rhetoric, and Linguistics, or as advised		18
THESIS Track Total Hours		**36**
NON-THESIS Track		
ENGL 5380	Studies in the Teaching of Composition	3
ENGL 5398	Methods of Bibliography and Research Analysis	3
or ENGL 5396	Digital Humanities	
American Literature		3
British Literature		3

Advised Electives (5000 Level) from Literature, Technical Communication, Rhetoric, and Linguistics, or as advised	21
NON-THESIS Track Total Hours	**36**

Technical Communication and Rhetoric

THESIS Track		
ENGL 5088	Thesis	6
ENGL 5320	Studies in the English Language	3
ENGL 5331	History of Rhetoric I	3
ENGL 5335	Seminar in Professional Writing	3
ENGL 5338	Technical Editing: Practice and Theory	3
ENGL 5396	Digital Humanities	3
or ENGL 5398	Methods of Bibliography and Research Analysis	
Advised Electives (5000 Level) from Literature (only 6 hours will be counted from Literature), Technical Communication, Rhetoric, or as advised		12
THESIS Track Total Hours		**36**
NON-THESIS Track		
ENGL 5320	Studies in the English Language	3
ENGL 5331	History of Rhetoric I	3
ENGL 5335	Seminar in Professional Writing	3
ENGL 5338	Technical Editing: Practice and Theory	3
ENGL 5396	Digital Humanities	3
or ENGL 5398	Methods of Bibliography and Research Analysis	
Advised Electives (5000 Level) from Literature (only 6 hours will be counted from Literature), Technical Communication, Rhetoric, or as advised		18
NON-THESIS Track Total Hours		**36**

Professors

- Dodson, Sam Dr.
- Quazi, Moumin Dr.
- Shipman, Barry "Mark" Dr.
- Widmayer, Anne Dr.

Associate professors

- Barrett, Jeanelle Dr.
- Hinson, Katrina Dr.
- Sword, Ben Dr.

Assistant professors

- Brewer, Jacob Dr.
- Downs, Kristina Dr.
- Henderson, Dylan Dr.
- Hunsaker, Amber Dr.
- Moore, Walter Dr.
- Waltrip, Preston Dr.

Courses

ENGL 5085. English Seminar. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 0 Hours).
Content varies according to the needs and desires of the students. When topic varies, course may be taken for credit more than once. Open to students of graduate classification.

ENGL 5086. Special Problems. 1-3 Credit Hours (Lecture: 0 Hours, Lab: 1-3 Hours).
Conference course. Directed independent study under supervision of a senior faculty member.

ENGL 5088. Thesis. 1-6 Credit Hours (Lecture: 1-6 Hours, Lab: 0 Hours).
Scheduled when student is ready to begin thesis. No credit until thesis is accepted. Prerequisites: 24 hours of graduate credit, including ENGL 5398, and prior approval of department head.

ENGL 5310. Studies in American Literature. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Focuses on restricted periods in American literary history. Examples include colonial American literature, the American Renaissance, American literary naturalism, post-World War II American literature, and minority literature in America. May be repeated for credit when topics vary.

ENGL 5312. Studies in British Literature. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Exploration of topics in British literature. Major and minor authors, single or multiple genres, and various themes may be covered, depending on instructor's choice of topic. May be repeated once for course credit when topics vary.

ENGL 5313. Literature in Practice. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course focuses on how literature influences, engages, and interacts with broader practical contexts outside of academia and how they influence, engage, and interact with the production, consumption and understanding of literary texts. These broader contexts may include corporate, professional, charitable, cultural, and governmental. Topics may include leveraging the study of literature in a professional context, the practical concepts of writing, reading, and producing literature, editing for literary publishers, how the labor of writing has been historically and contemporaneously conceived, the role of publication in cultural concepts, or how literature can take us places we haven't anticipated. Credit will not be awarded for both ENGL 5313 and ENGL 6313.

ENGL 5314. Literary Theory. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The focus of this course is to introduce students to literary theory, either via a broad diachronic study or by examining a particular critical approach as it applies to literary texts, depending on instructor's choice of topic. May be repeated for course credit when the topic varies.

ENGL 5315. The Graphic Novel. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Students in this class will study the graphic narrative: the combination of images and text to convey meaning. While the graphic novel is the primary genre explored, other related forms and genres such as comics, comic strips, and web-comics could also be utilized as supplemental material especially for comparative purposes. In this course students will analyze the formal structures of, various uses of, or applications of the graphic novel. Note: The course content will vary depending on the instructor teaching; focus of the course for the semester will be made clear in the course schedule for the given term. Prerequisites: Graduate Standing.

ENGL 5316. African-American Literature. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course introduces students to African-American literature, either via a broad diachronic study or by examining a particular theme, depending on instructor's choice of topic.

ENGL 5317. Folklore. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines the connections between folklore, its occurrence in daily life, and the scholarly analysis of its use in culture from varied times and societies. Students will examine how folklore may potentially shape individual or group attitudes, values and beliefs on varied topics. Students will reflect on their actual belief systems and how those systems develop and inform other aspects of their lives and the lives of others. As a graduate course, students will learn appropriate research methodologies common to the study of folklore. Note: The course content will vary depending on the instructor teaching; focus of the course for the semester will be made clear in the course schedule for the given term. Prerequisites: Graduate Standing.

ENGL 5318. Women's Literature. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to explore the literary works of women writers, their contributions to the greater literary tradition, and the social commentaries that emerge from the texts. Students will also be expected to recognize the ways in which women writers respond to traditional literary discourse. Specific topics, eras, and genres will vary with the instructor.

ENGL 5319. Beat and Hippie Literature. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The purpose of this course is to immerse students in the movements, themes, trends, tropes, and innovations that constitute a beginning grasp of both the Beat and the Hippie Movements as they pertain to literature and by extension American culture. Beginning in post-war America and moving through the 1960s, the seminal texts of these two similar but different eras convey, initially, the disillusionment with and rebellion to the burgeoning American consumerism and conservatism of the Eisenhower years, the emergence of a national counter culture seeking universal truths outside of Western mythologies, the advent of drugs along with the widening celebration of first jazz (bebop) and then rock 'n roll, and then move on to vehement protests of the disastrous war in Vietnam, the changing mores of America, and the consequent Generation Gap.

ENGL 5320. Studies in the English Language. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Focuses on historical and/or linguistic study of the English language. Topics will vary. Examples include history of the English language and the English language in America. May be repeated for credit when topics vary.

ENGL 5321. Psycholinguistics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Deals with a variety of formal cognitive mechanisms that are relevant to the knowledge and use of natural languages. Primary emphasis is on the modular view of the mind and its consequences for both L1 and L2 language acquisition.

ENGL 5327. Executive Writing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines the challenges that executives face in advancing their organization's success through the texts that they write. It considers the top-down nature of communication from executive levels, explores typical executive-level genres such as strategy and management plans and guidance documents, and presents techniques for developing documents that convey information accurately while meeting the needs of stakeholders inside and outside the organization and supporting the goals of the organization.

ENGL 5328. Ethics in Technical and Professional Writing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course focuses on the professional ethics of professional and technical writers; addresses the ethical issues associated with the design, use, and propagation of technology; and other ethical and rhetorical challenges for technical communicators. At virtually all stages of development and use, any technology can carry with it ethical dilemmas for both creators and users. Of particular interest is how such dilemmas are resolved (or complicated) according to how effectively they are communicated to stakeholders. By exploring historical and present-day case studies related to such topics as the environment, research and development, safety, corporate responsibility, and whistle blowing, students will analyze and practice various forms of technical communication. Prerequisites: Graduate standing.

ENGL 5330. Studies in Rhetoric. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of written language theories. Course contents include readings from a wide spectrum including classical Greece and Rome, the European enlightenment, nineteenth century America, and modern and post-modern periods. May be retaken for credit when topics vary.

ENGL 5331. History of Rhetoric I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The Classical Era through the Enlightenment – A survey of the early history of rhetorical study. Course contents include readings from classical Greece and Rome as well as significant eras such as the Medieval period, the Renaissance, and the European Enlightenment.

ENGL 5332. History of Rhetoric II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Continuation of the study of rhetorical history. Course contents include readings from the nineteenth century as well as modern and postmodern rhetorical studies. The course places a particular emphasis on discourse analysis and contemporary application of rhetorical theory.

ENGL 5333. Rhetorical Criticism. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Explores the principles of rhetorical theory and criticism for writing studies and technical communication. Analysis of a variety of popular and political and persuasive messages, which may include political speeches, commercial advertising, artwork, song lyrics, scientific articles for popular audiences and within science communities, workplace writing, writing for social media, and other forms of purposeful presentation of argument.

ENGL 5334. Introduction to Visual Rhetoric. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduces theories of visual rhetoric and visual design, especially as applied to instructions and presentation of technical and scientific content.

ENGL 5335. Seminar in Professional Writing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This class studies the theory and practical applications at work in the production of technical and professional documents. Students will study and produce written documents for a variety of audiences and fields. Credit will not be awarded for both ENGL 5335 and ENGL 6335.

ENGL 5336. Grant and Proposal Writing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Principles and practice in writing grant applications and proposals, including finding grants. May include a service learning project.

ENGL 5337. Intercultural Technical and Professional Writing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Considers the implications of communicating scientific and technical content and information to many cultures. Looks at technical communication in light of cultural values and cultural mores.

ENGL 5338. Technical Editing: Practice and Theory. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Explores the practices and processes of technical, professional, and workplace editing and the theories that support those practices. Covers hand and electronic markup and editing as applied to text, document design, and information architecture. Students complete an editing project from analysis to delivery.

ENGL 5339. Studies in Disability Rhetoric. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course offers advanced study in the theory, nature, and practice of discourse. In this course we will explore aspects of discourse of and about disability: how we identify and define it, how we perceive and respond to it, and mostly, how we communicate about it (verbally, through written texts, and otherwise).

ENGL 5340. Studies in Modern Fiction. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An evaluation of English and American short stories, novels, and related criticism. Topics will vary and will include study of themes and development of the genre. May be repeated for credit when topics vary.

ENGL 5345. Film Studies. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The focus of this course is to introduce students to film as a literary medium. Through a focused study of films and varied film industries, students will examine the narrative qualities central to the filmic experience. Students will also explore genre theory and the formulas of genre.

ENGL 5350. Studies in Literature Before 1500. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of representative types of pre-1500 literature in English. Topics may vary. May be repeated for credit when topics vary.

ENGL 5360. Modern American and British Poetry. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of representative themes in the development of American and English poetry. Related critical readings will be studied. Topics will vary. May be repeated for credit when topics vary.

ENGL 5370. Studies in Comparative Literature. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A comparative study of great literature in the world in translation. Topics may vary and may include examination of theme, technique, and type. May be repeated for credit when topics vary.

ENGL 5371. Scholarly Writing in Health. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Intensive scholarly writing in the health sciences and related fields emphasizing elements and techniques of credible, scholarly writing and critical thinking. This courses utilizes American Psychological Association (APA) format and style. Student evolution in writing will be developed through sequential papers and faculty/peer feedback.

ENGL 5380. Studies in the Teaching of Composition. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The course is devoted to the study of the aims, skills, materials, and practices of composition teaching at college and junior college levels. May be repeated for credit when topics vary.

ENGL 5396. Digital Humanities. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course brings students to the intersection of humanities research and the digital age, as they explore methods of research, presentation and communication within the field. We will trace the advent of digital scholarship at the end of the 20th century and confront the multiple forms of publication open to scholars and practitioners in the 21st. Students will explore the intersections of technology and humanities. Students will learn how to conduct research using digital sources and communication methods. Credit will not be awarded for both ENGL 5396 and ENGL 6396.

ENGL 5397. Internship. 3 Credit Hours (Lecture: 1 Hour, Lab: 7 Hours).
Supervised professional activities in the college composition classroom including presentations, evaluation, and conferences. May be repeated once for credit. Field experience fee $50.

ENGL 5398. Methods of Bibliography and Research Analysis. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introduction to methods of research and effective utilization of library resources. May include analytical bibliography, enumerative bibliography, and textual criticism.

ENGL 6313. Literature in Practice. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course focuses on how literature influences, engages, and interacts with broader practical contexts outside of academia and how they influence, engage, and interact with the production, consumption and understanding of literary texts. These broader contexts may include corporate, professional, charitable, cultural, and governmental. Topics may include leveraging the study of literature in a professional context, the practical concepts of writing, reading, and producing literature, editing for literary publishers, how the labor of writing has been historically and contemporaneously conceived, the role of publication in cultural concepts, or how literature can take us places we haven't anticipated. Credit will not be awarded for both ENGL 5313 and ENGL 6313.

ENGL 6335. Seminar in Professional Writing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This class studies the theory and practical applications at work in the production of technical and professional documents. Students will study and produce written documents for a variety of audiences and fields. Credit will not be awarded for both ENGL 5335 and ENGL 6335.

ENGL 6396. Digital Humanities. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course brings students to the intersection of humanities research and the digital age, as they explore methods of research, presentation and communication within the field. We will trace the advent of digital scholarship at the end of the 20th century and confront the multiple forms of publication open to scholars and practitioners in the 21st. Students will explore the intersections of technology and humanities. Students will learn how to conduct research using digital sources and communication methods. Credit will not be awarded for both ENGL 5396 and ENGL 6396.

Department of Performing Arts

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The Master of Music in Music Education at Tarleton provides working practitioners the opportunity to earn an online degree in music education with a faculty representing diverse areas of experience and expertise; prepares students for further graduate study at the doctoral level and/or careers in music education; challenges students to increase their knowledge of theory, history, and aesthetics of music; equips students with analytical, conceptual, historical, technical, and pedagogical skills to be successful in their chosen field; and facilitates students' growth and development as leaders in the profession of music education and as contributors, through research, to the profession and discipline of music education.

Candidates applying for admission to the Master of Music in Music Education degree are required to meet Tarleton State University's general admission requirements for all graduate students. The GRE is not required. Candidates will have completed an undergraduate degree in Music Education or a comparable degree. Applicants must demonstrate at least baccalaureate-level competence in music theory and music history/literature. The department head, in consultation with the graduate music faculty, will review the student's transcript to determine the nature and amount of leveling work if necessary.

The degree consists of 36 hours and students may choose one of three tracks: 1) General: 36 hours of coursework; 2) Thesis: 30 hours of coursework and 6 hours of thesis; 3) Curriculum project: 30 hours of coursework and 6 hours of curriculum project.

Master of Music in Music Education Program Requirements

Music Core Courses		
MUSI 5330	Analytical Techniques	3
MUSI 5331	Advanced Scoring and Arranging	3

MUSI 5353	Ethnomusicology	3
or MUSI 5357	Seminar in Music of the United States	
or MUSI 5354	Topics in Musicology	
Music Education Core Courses		
MUSI 5340	Foundations of Music Education	3
MUSI 5341	Research in Music Education I	3
MUSI 5342	Research in Music Education II	3
MUSI 5343	Advanced Elementary Music Pedagogy	3
or MUSI 5344	Advanced Secondary Music Pedagogy	
Elective Options [1]		**9**
MUAP 5121	Applied Music for Graduate Majors	
MUAP 5231	Applied Music for Graduate Majors	
MUEN 5121	Graduate Music Ensemble	
MUSI 5343	Advanced Elementary Music Pedagogy	
MUSI 5344	Advanced Secondary Music Pedagogy	
MUSI 5346	Marching Band Methods	
MUSI 5350	Technology in the Music Classroom	
MUSI 5351	Music Theory Pedagogy for the K-12 Educator	
MUSI 5353	Ethnomusicology	
MUSI 5354	Topics in Musicology	
MUSI 5355	Psychology of Music	
MUSI 5357	Seminar in Music of the United States	
MUSI 5360	Measurement for Music Researchers	
MUSI 5361	Acoustics of Music	
MUSI 5363	Audio Production	
MUSI 5390	Selected Tpcs in Musc Educ	
MUSI 5391	Music Administration	
MUSI 5086	Graduate Music Problems	
Total Hours		**30**

Curriculum Project

MUSI 5345	Curriculum Project	3
MUSI 5345	Curriculum Project	3
Total Hours		**6**

General Music Education

MUSI Electives [1]		**6**
MUSI 5343	Advanced Elementary Music Pedagogy	
MUSI 5344	Advanced Secondary Music Pedagogy	
MUSI 5346	Marching Band Methods	
MUSI 5350	Technology in the Music Classroom	
MUSI 5351	Music Theory Pedagogy for the K-12 Educator	
MUSI 5353	Ethnomusicology	
MUSI 5354	Topics in Musicology	
MUSI 5355	Psychology of Music	
MUSI 5357	Seminar in Music of the United States	
MUSI 5360	Measurement for Music Researchers	
MUSI 5361	Acoustics of Music	
MUSI 5363	Audio Production	
MUSI 5390	Selected Tpcs in Musc Educ	
MUSI 5391	Music Administration	
MUSI 5086	Graduate Music Problems	
Additional elective options as determined by department		
Total Hours		**6**

Thesis

MUSI 5388	Thesis [2]	3
MUSI 5388	Thesis [2]	3
Total Hours		**6**

Courses

MUSI 5086. Graduate Music Problems. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 1-6 Hours).
A directed study of selected problems in the graduate study of music.

MUSI 5330. Analytical Techniques. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
In-depth analysis of common-practice repertoire through multiple techniques. Prerequisite: Admission to the graduate program.

MUSI 5331. Advanced Scoring and Arranging. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An advanced study of scoring music for various instrumental and choral groups. Projects in adapting music from a variety of sources. An emphasis on independent needs are also addressed as they relate to the working music educator. Prerequisite: Admission to the graduate program.

MUSI 5340. Foundations of Music Education. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An investigation of historical and philosophical principles that provide the context for contemporary music education. The course focuses on developing a vision of music education for the future. Topics include philosophical principles of music education, psychological theories relevant to music teaching, and practical application of these principles through the National Standards for Music. Prerequisites: Admission to the graduate program.

MUSI 5341. Research in Music Education I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An exploration of methods and materials of research in music, including styles of writing and proper documentation of sources with an emphasis on developing strategies for organization and information access. Prerequisite: Admission to the College of Graduate Studies.

MUSI 5342. Research in Music Education II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Overview of music education research. Research design and methodology to include an introduction to the component parts of research and the different types of research. Prerequisite: Admission to the College of Graduate Studies.

MUSI 5343. Advanced Elementary Music Pedagogy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A graduate course exploring multiple pedagogies in elementary music. Prerequisite: Admission to the graduate program.

MUSI 5344. Advanced Secondary Music Pedagogy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A comprehensive overview of current methods and materials used in teaching music at the secondary level, grades 7-12. Prerequisite: Admission to the graduate program.

MUSI 5345. Curriculum Project. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The final project for students in the Master of Music Education degree that will serve as a culminating example of work performed at the master's level. Prerequisites: Successful completion of all coursework required for the Master of Music in Music Education and/or permission from the instructor is required.

MUSI 5346. Marching Band Methods. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Marching Band Methods teaches music education majors how to administer a marching band program. Areas of administration are: show design, scheduling, programming, competition. Students will use software to learn to design marching band shows, and review other software useful in administering a marching band program. Prerequisite: Admission to the graduate program.

MUSI 5350. Technology in the Music Classroom. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Development of concepts and skills related to current computer technology in music. Applications of technology in the music classroom will aid in students' acquisition of musical knowledge and skills, and will assist with time-management and organization for the music educator. Prerequisite: Admission to the College of Graduate Studies.

MUSI 5351. Music Theory Pedagogy for the K-12 Educator. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to develop and implement strategies to incorporate music theory pedagogy in the classroom for the K-12 educator. Students will also develop a comprehensive music theory program for K-12. In addition, AP Music Theory teaching strategies will be addressed.

MUSI 5353. Ethnomusicology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Examination of the formation of the discipline of ethnomusicology through a survey of its history, theories, and methodologies. Includes basic ethnomusicological concepts, such as organology, music ritual, notation and transcription, and aspects of field research. Research and writing of papers on selected topics. Credit will not be awarded to both MUSI 5353 and MUSI 6353.

MUSI 5354. Topics in Musicology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An examination of selected topics within musicology with a focus on areas relevant to music educators. Course may be repeated for credit as the topic changes, for a maximum of six hours.

MUSI 5355. Psychology of Music. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A critical examination of questions, designs, and conclusions of previous research in a variety of areas related to the acoustical and psychological aspects of music and how these areas relate to music education. Prerequisite: Admission to the graduate program.

MUSI 5357. Seminar in Music of the United States. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Music of the United States from the colonists to the present. Selected and significant works will be studied through analysis and performance practice, and in historical context. The variety of sources and styles include European, African American, Native American, and Spanish-Mexican.

MUSI 5360. Measurement for Music Researchers. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An exploration of statistics, measurement and evaluation in music education, and the methods and materials of research in music, organize and interpret data, and apply results of published research in music. A variety of research methodology is studied and utilized. It is recommended that students complete MUSI 5341 – Research in Music Education I and MUSI 5342 – Research in Music Education II prior to enrolling into this course.

MUSI 5361. Acoustics of Music. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of the physiological properties of sound, the ear and its perception of sounds; the effect of acoustical environment; the acoustical behavior of musical instruments; and the various applications of electronics and computers to the production, reproduction, and composition of music.

MUSI 5363. Audio Production. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Students will complete coursework permitting them to test for Pro Tools 101 and 110 user certification. Topics will include techniques for recording in studio and other settings, hardware and software selection and setup, microphone selection and use, working with analog and digital audio, working with MIDI, virtual and electronic instruments, working with various audio file types, mixing and editing in post-production; enhancing audio using effects and automations; using groups and similar tools within the software; mastering; and distributing audio. Students will complete a significant individual recording project during the class and those already holding Pro Tools certification will also find it useful. This class will focus on industry-standard software, Pro Tools.

MUSI 5388. Thesis. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Scheduled when the student is ready to begin thesis. No credit until thesis is completed. Prerequisites: Successful completion of all coursework required for the Master of Music in Music Education and/or permission from the instructor is required.

MUSI 5390. Selected Tpcs in Musc Educ. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An examination of different topics with a focus on contemporary issues in Music Education. This course may be repeated for credit as the topic changes, for a maximum of six hours. Prerequisite: Approval of Department Head.

MUSI 5391. Music Administration. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An advanced study of the knowledge and skills required to administer an elementary, middle, or high school music program.

MUSI 6353. Ethnomusicology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Examination of the formation of the discipline of ethnomusicology through a survey of its history, theories, and methodologies. Includes basic ethnomusicological concepts, such as organology, music ritual, notation and transcription, and aspects of field research. Research and writing of papers on selected topics. Credit will not be awarded to both MUSI 5353 and MUSI 6353.

College of Science & Mathematics

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The mission of the College of Science and Mathematics (COSM) at Tarleton State University is to provide innovative programs of excellence in education, research, and community & professional service at both the undergraduate and graduate levels. COSM prepares highly competitive graduates as judged by the highest academic standards in the fields of science, technology, and mathematics (STEM).

The College of Science and Mathematics has three primary roles:

- to provide the opportunity for students to pursue a degree or minor in a major field of science, technology, or mathematics
- to provide the courses in mathematics and natural & physical sciences that form an essential part of the general education requirement required of all University students
- to provide supporting courses for students in other academic areas, such as education, business, engineering, health sciences, and agriculture

Degree programs available in the College of Science and Mathematics feature considerable variety at both the undergraduate and graduate levels. The range includes a breadth of programs in mathematics, natural sciences, and physical sciences. The college also offers courses that provide the foundation required for health professional fields such as medicine, dentistry, optometry, veterinary, and pharmacy. The college offers master's degrees in three areas: biology, environmental science, and mathematics.

Departments and Programs

- Department of Biological Sciences (p. 116)
  - Master of Science in Biology
- Department of Chemistry, Geoscience, and Physics (p. 120)
  - Master of Science in Environmental Science
- Department of Mathematics (p. 123)
  - Master of Science in Mathematics
  - Master of Science in Data Science

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Master of Science in Biology

The graduate degree offered in the Department of Biological Sciences is intended to enrich and enhance education in biological sciences in order to prepare students for leadership roles in industrial, educational and research-oriented careers. The Department of Biological Sciences offers the Master of Science degree with thesis and non-thesis options, as well as a non-thesis Life Science Education option.

Students should have an undergraduate major in biology in order to gain full admission to the program. Those lacking the desired background will be required to complete appropriate leveling work. The departmental graduate advisor will review the student's transcript and determine the nature and amount of leveling work, and will assist the student in establishing his or her advisory committee. The committee chair, who will assume duties for the student through the remainder of their graduate program, should be chosen by the end of the first semester of graduate work. The advisory committee should consist of a minimum of three members. At least two members will be selected from Biological Sciences graduate faculty. Remaining members may be selected from the Biological Sciences graduate faculty or from graduate faculty outside the Biological Sciences that have expertise relevant to the student's area of interest.

The thesis, consisting of the written report of the research, must be the student's original work and must reflect his or her ability to express thoughts accurately and clearly. Both the thesis proposal and thesis must be written according to guidelines and deadlines established by the College of Graduate Studies and the Department of Biological Sciences. Students should refer to the Graduate Handbook, Thesis Manual, and the Biological Sciences Graduate Students Handbook for more detailed information.

Thesis students are encouraged to quickly establish and begin working with their advisory committee on a research proposal. To continue matriculation in the thesis option, students are required to gain approval of their research proposal from their advisory committee and submit the proposal to the College of Graduate Studies by the end of their first year in the program. Students failing to meet this deadline will be required to meet with their advisory committee to discuss a

possible extension of the proposal deadline or switching to the non-thesis option. Thesis hours (BIOL 5088 Thesis) cannot be taken until the thesis proposal has been approved by the advisory committee and submitted to the College of Graduate Studies.

Upon completion of the thesis and approval by the advisory committee and College of Graduate Studies, the student is required to schedule a public, oral presentation of his or her research followed by a comprehensive oral examination administered by the advisory committee. The oral examination will emphasize topics related to the thesis and course work. Successful completion of the comprehensive oral examination completes the program. If the attempt at the comprehensive oral examination is unsuccessful, it is at the discretion of the advisory committee to dismiss the student from the program or recommend to the student a plan of action to repeat the comprehensive oral examination. If a plan to repeat the examination is recommended, the plan may include recommendations to repeat courses in the weak areas, take additional course work, or spend more time in individual preparation prior to rescheduling a second attempt at the exam.

Master of Science in Biology Program Requirements

BIOL 5185	Seminar [1]	1
BIOL 5185	Seminar [1]	1
BIOL 5398	Research Design and Analysis	3
Additional BIOL Coursework*		13

*Select no more than 12 hours from the following: BIOL 5086, BIOL 5310, BIOL 5315, BIOL 5340, BIOL 5345, BIOL 5374, BIOL 5375, BIOL 5378, BIOL 5401, BIOL 5402, BIOL 5406, BIOL 5410, BIOL 5413, BIOL 5415, BIOL 5420, BIOL 5430, BIOL 5436, BIOL 5440, BIOL 5441, BIOL 5445, BIOL 5449, BIOL 5451, BIOL 5460, BIOL 5462, BIOL 5470, BIOL 5475

Total Hours	**18**

Non-Thesis

Additional BIOL Coursework*	8
Additional BIOL or Supporting Area*	10

*Select no more than 12 hours from the following: BIOL 5086, BIOL 5310, BIOL 5315, BIOL 5340, BIOL 5345, BIOL 5374, BIOL 5375, BIOL 5378, BIOL 5401, BIOL 5402, BIOL 5406, BIOL 5410, BIOL 5413, BIOL 5415, BIOL 5420, BIOL 5430, BIOL 5436, BIOL 5440, BIOL 5441, BIOL 5445, BIOL 5449, BIOL 5451, BIOL 5460, BIOL 5462, BIOL 5470, BIOL 5475

Total Hours	**18**

Thesis

BIOL 5088	Thesis	6
BIOL 5380	Biological Scientific Writing	3
Additional BIOL Coursework*		2
Additional BIOL or Supporting Area*		3

*Select no more than 12 hours from the following: BIOL 5086, BIOL 5310, BIOL 5315, BIOL 5340, BIOL 5345, BIOL 5374, BIOL 5375, BIOL 5378, BIOL 5401, BIOL 5402, BIOL 5406, BIOL 5410, BIOL 5413, BIOL 5415, BIOL 5420, BIOL 5430, BIOL 5436, BIOL 5440, BIOL 5441, BIOL 5445, BIOL 5449, BIOL 5451, BIOL 5460, BIOL 5462, BIOL 5470, BIOL 5475

Total Hours	**14**

The non-thesis Master's candidate, during the final semester of course work, is required to successfully complete a comprehensive written and oral examination. For the written exam, instructors of degree plan courses are invited to submit questions over course material as the basis of the written exam. After successful completion of the written exam, students are required to schedule an oral examination with their advisory committee. Successful completion of the written and oral examination completes the program. If an attempt at the written or oral exam proves unsuccessful, it is at the discretion of the advisory committee to dismiss the student from the program or recommend a plan of action to the student to repeat the written or oral comprehensive examination. If a plan to repeat the examination is recommended, the plan may include recommendations to repeat courses in weak areas, take additional course work, or spend more time in individual preparation prior to rescheduling a second attempt at the exam.

Courses

BIOL 5086. Biological Problems. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 1-6 Hours).
Independent research under the supervision of an instructor. A formal report will be submitted to the instructor. A student may not count more than 6 hours of biological problems toward a degree. Lab fee $10.

BIOL 5088. Thesis. 1-6 Credit Hours (Lecture: 1-6 Hours, Lab: 0 Hours).
Scheduled when the student is ready to begin the thesis. No credit until thesis is completed. Prerequisite: BIOL 5398 and consent of major professor.

BIOL 5185. Seminar. 1 Credit Hour (Lecture: 1 Hour, Lab: 0 Hours).
A graduate seminar course providing the opportunity for students to lead discussions on a current topic in Biology. Topics vary according to interests of faculty and/or students. May be repeated for credit as topics vary. Prerequisite: 12 hours of biology.

BIOL 5188. Immunology Lab Techniques. 1 Credit Hour (Lecture: 0 Hours, Lab: 3 Hours).
Apply current techniques in experimental immunology and serology. Credit will not be awarded for both BIOL 3185 and BIOL 5188. Prerequisite: BIOL 5385 or concurrent enrollment Lab Fee: $2.

BIOL 5302. Ecological Plant Physiology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The interrelations of plants and their environments with emphasis on those which are subject to manipulation. Critical processes such as dormancy, photosynthesis, nutrition, reproduction, and water relations and their interactions in survival and biomass production. Prerequisite: BIOL 3426 or approval by the department head.

BIOL 5309. Cellular Biology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of cellular morphology and function at the ultrastructural and molecular level. Prerequisites: Organic chemistry and 18 hours of BIOL or approval by the department head.

BIOL 5310. Developmental Biology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduction to basic principles of developmental biology. The course will include sections on classical embryology, the molecular basis of development, and evolution of development. In addition, students will read/discuss relevant articles from the primary literature. Students cannot receive credit for both BIOL 5310 and BIOL 4340. Prerequisite: A course in genetics.

BIOL 5315. Vaccines. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will cover the basic principles in the study of vaccines by providing a foundation to the understanding of the immune response to vaccinations, development of vaccinations, and the significance of individual human and animal vaccines. Students cannot receive credit for both BIOL 5315 and BIOL 4350. Prerequisite: A course in microbiology.

BIOL 5320. Environmental and Restoration Biology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Study of human interactions with plants and animals within ecosystems with an emphasis on conservation and restoration ecology. Outdoor laboratories and restoration of plant communities are required.

BIOL 5321. The Aquatic Environment. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the basic principles involved in the ecology of the aquatic community including biotic and abiotic relationships. Emphasis placed on the sources of water contamination to include the effects of the contamination upon the changes in water chemistry and their possible biological implication. Prerequisites: 18 hours of BIOL and 2 semesters of CHEM or approval by the department head.

BIOL 5330. Development of Modern Biological Concepts. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the development of biological concepts and their impact upon science and society. Biographical as well as contemporary readings will be involved. Prerequisite: Graduate classification or approval by the department head.

BIOL 5331. Conservation Biology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Principles of conservation biology and the major issues that define the discipline. Study of value, threats to, and conservation of biodiversity. Conservation issues at the population and species levels, policy, and practical applications of the science will be included. Prerequisites: Genetics and Ecology, or approval of department head.

BIOL 5340. Measuring Biological Diversity. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to give graduate students real world experience in acquiring and analyzing basic ecological data on the distribution and abundance of living organisms.

BIOL 5345. Behavioral Ecology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The aim of this course is to understand variation in behavior among species and among individuals within a species. The course will focus on how behavior affects an animal's ability to survive and reproduce. Students cannot receive credit for both BIOL 5345 and BIOL 4320.

BIOL 5350. Environmental Microbiology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is online. Students will learn about the microorganism populations in the soil and water, and then learn about how they impact these environments, both positively and negatively, while learning about DNA sequencing technologies, biochemistry, and biogeochemical cycling. Prerequisite: enrolled in graduate school.

BIOL 5360. Bacterial Genetics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to be an advanced course in molecular biology and genetics, focusing on DNA structure, transcription, translation, and regulation of the central dogma of life. Bacteria (E. coli) are used as a model system due to their simplicity and extensive information available. Prerequisite: Enrolled in graduate school. Undergraduate level cell biology or genetics.

BIOL 5361. Evolutionary Biology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Examination of evolutionary patterns, mechanisms and processes at the organismal, chromosomal and molecular levels; modes of adaptation and the behavior of genes in populations. Prerequisite: Genetics.

BIOL 5374. Biochemistry. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introduction to the basic principles of biological chemistry and to fundamental processes of plants, animals and microorganisms. Students cannot receive credit for both BIOL 5374 and BIOL/CHEM 4374. Students will need to have completed Organic Chemistry with "C" or better.

BIOL 5375. Biochemistry II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A detailed survey of intermediary metabolism. The metabolism of carbohydrates, lipids, proteins and nucleic acids, and the regulation of metabolism are emphasized. Students cannot receive credit for both BIOL 5375 and BIOL 4375. Prerequisites: Courses in Organic Chemistry and Biochemistry.

BIOL 5378. Biochemistry Lab. 3 Credit Hours (Lecture: 1 Hour, Lab: 5 Hours).
Principles and applications of basic methodology for the isolation, purification, characterization, and quantitative determination of biologically important compounds. Students cannot receive credit for both BIOL 5310 and BIOL 4378. Prerequisites: Courses in Organic Chemistry and Biochemistry Lab fee: $2.

BIOL 5380. Biological Scientific Writing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course covers the basic principles of scientific writing with an emphasis on writing for the biological sciences. A specific focus of the course will be on the design, planning and writing of a research proposal in terms of problem selection, objectives, methodology, and formatting. Students will learn the types of literature and complete a literature search and review. Students will present their research proposal in an oral presentation.

BIOL 5385. Immunology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Emphasis on the basic concepts of humoral and cell-mediated immunity. Prerequisite: Undergraduate Microbiology.

BIOL 5390. Special Topics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Selected topics in an identified area of biology, biochemistry or biotechnology. May be repeated for credit as topics vary. Prerequisites: 12 hours of biology and 8 hours of chemistry or approval of department head.

BIOL 5395. Pathogenic Microbiology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the disease-producing capacities of various microorganisms with emphasis on the diagnostic procedure of isolation and identification. Students cannot receive credit for both BIOL 5340 and BIOL 3395. Prerequisites: A course in microbiology Lab Fee: $2.

BIOL 5398. Research Design and Analysis. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Statistical principles and techniques applicable to the procurement, analysis, and evaluation of quantitative data. Prerequisite: MATH 1314 or approval by the department head.

BIOL 5399. Practicum, Field Problem, or Internship. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Supervised practice in specialized laboratory or professional settings. Prerequisites: 12 hours of biology and 8 hours chemistry or approval of department head.

BIOL 5401. Ecology. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
The scientific study of the biotic and abiotic interactions that determine the distribution and abundance of organisms. Students cannot receive credit for both BIOL 5401 and BIOL 4401. Lab fee: $2.

BIOL 5402. Histology. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
Introduction to cellular ultrastructure. Study of vertebrate tissues and their arrangement in various organs. Students cannot receive credit for both BIOL 5402 and BIOL 3402. Lab fee: $2.

BIOL 5406. Comparative Vertebrate Anatomy. 4 Credit Hours (Lecture: 3 Hours, Lab: 4 Hours).
The morphology, physiology, and phylogeny of the organ systems of vertebrates. Laboratory study of representative vertebrates. Students cannot receive credit for both BIOL 5406 and BIOL 3406. Lab fee: $2.

BIOL 5410. Terrestrial Field Ecology. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
A study of the structure and functioning of terrestrial communities with an emphasis on plants. Laboratories will be conducted over three weekends. Students cannot receive credit for both BIOL 5410 and BIOL 4420. Prerequisite: A course in plant taxonomy or department head approval Lab fee: $2.

BIOL 5413. Molecular Biology. 4 Credit Hours (Lecture: 3 Hours, Lab: 4 Hours).
Fundamentals of gene expression, gene regulation, DNA metabolism and nucleic acid structure, recombinant DNA techniques and protein structure. Students cannot receive credit for both BIOL 5413 and BIOL 3413. Prerequisites: Course in genetics and organic chemistry Lab fee: $2.

BIOL 5415. Plant Taxonomy. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
Principles of plant taxonomy. Field and laboratory studies of common Texas wild flowers and trees with emphasis on identification, collection, and preparation of herbarium specimens. Students cannot receive credit for both BIOL 5415 and BIOL 3415. Lab fee: $2.

BIOL 5420. Plant Pathology. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
Study of the various types of plant diseases and specific examples of each type. Emphasis upon identification, host-parasite interactions, pathogen dissemination, and control methods. Students cannot receive credit for both BIOL 5420 and BIOL 3420. Lab fee: $2.

BIOL 5430. Ornithology. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
A study of the basic biology of birds, including origins, systematics, ecology, biogeography, physiology, anatomy, and reproductive biology. Laboratory emphasizes identification of regional avifauna and includes multiple field trips. Students cannot receive credit for both BIOL 5430 and BIOL 4430. Lab fee: $2.

BIOL 5436. Plant Physiology. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
A study of physiology of green plants with emphasis on nitrogen metabolism, respiration, mineral nutrition, photosynthesis, and growth. Students cannot receive credit for both BIOL 5436 and BIOL 3436. Lab fee: $2.

BIOL 5440. Herpetology. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
A survey of the biology of amphibians and reptiles, with emphasis on phylogenetics, ecology, physiology, morphology, zoogeography, conservation, and taxonomy. Laboratory and field work will provide students with practical experience in collecting, identifying, and preparing specimens of regional species, as well as observing populations in natural settings. Students cannot receive credit for both BIOL 5440 and BIOL 4440. Lab fee: $2.

BIOL 5441. Freshwater Biology. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
The study of aquatic communities and the biogeochemical factors affecting the productivity of ponds, reservoirs, and streams (Limnology). Labs focus on field collections and student-driven experimental research. Students cannot receive credit for both BIOL 5441 and BIOL 4441. Lab fee: $2.

BIOL 5445. Parasitology. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
This course will cover parasite diversity (focusing on parasitic organisms of medical and veterinary importance) and parasite biology including aspects of morphology, identification, pathology, treatment, and ecology of the parasite-host relationship. Students cannot receive credit for both BIOL 5445 and BIOL 4445. Lab fee: $2.

BIOL 5449. Animal Diversity. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
The study of the morphology, taxonomy, biology, and phylogeny of the invertebrate animals. In lecture, students concentrate on basic concepts of structures, function and evolutionary development of major invertebrate groups. In lab, students are exposed to a large collection of invertebrates, learning about systematics, ecology, structure and phylogenetic relationships. Students cannot receive credit for both BIOL 5449 and BIOL 3449. Lab fee: $2.

BIOL 5451. Mammalogy. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
A study of the evolution, anatomy, behavior, ecology, systematics, and basic biology of mammals. Laboratory work includes identification of regional mammals as well as techniques for the collection and preparation of mammalian specimens. Students cannot receive credit for both BIOL 5451 and BIOL 4451. Lab fee: $2.

BIOL 5460. Animal Physiology. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
An advanced course in the fundamentals of vertebrate physiology emphasizing physiologic mechanisms from a basic molecular/cellular level up to the level of organ systems, which include the nervous, endocrine, muscular, cardiovascular, respiratory, digestive and urinary systems. The basic physiologic mechanisms are presented in the context of human physiology, however, how selected animals are adapted to particular environments is addressed. Laboratory exercises involve the use of electronic instrumentation to measure physiologic responses non-invasively in human volunteers or in surgically prepared animals. Students cannot receive credit for both BIOL 5460 and BIOL 4460. Lab fee: $2.

BIOL 5462. Icthyology. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
A study of the anatomy, behavior, ecology, evolution, taxonomy, and zoogeography of fishes. Field and laboratory work provide students with practical experience in collecting, identifying, and studying fishes. Emphasis will be placed on local fauna. Students cannot receive credit for both BIOL 5462 and BIOL 4462. Lab fee: $2.

BIOL 5470. Phycology. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
Hands-on training in the taxonomy, ecology, and ecophysiology of algae. Discussion of current uses of algae for water quality, biofuel, food production, forensic science, and nanotechnology. Students cannot receive credit for both BIOL 5470 and BIOL 3430. Lab fee: $2.

BIOL 5475. Immunology. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
Emphasis on the basic concepts of humoral and cell-mediated immunity. Laboratory: current techniques in experimental immunology and serology. Students cannot receive credit for both BIOL 5475 and BIOL 3485. Lab fee: $2.

BIOL 6181. Philosophy of Biology Seminar. 1 Credit Hour (Lecture: 1 Hour, Lab: 0 Hours).
A graduate seminar course providing student-led discussion over directed readings related to the Philosophy of Biology. Topics include mechanism, consilience and abduction in scientific reasoning; demarcation between science and pseudoscience, the nature of life, genes, individuals, and species; adaptation and function; information and signaling; partitioning variation and the tree of life.

BIOL 6182. Ethical Conduct of Research Seminar. 1 Credit Hour (Lecture: 1 Hour, Lab: 0 Hours).
A graduate seminar course emphasizing the importance of ethical conduct of research, reporting research, and the reproducibility crisis in science. Faculty and students will lead discussions on the importance of institutional oversight of research, moral responsibility in conducting research, data 'ownership,' the proper storage and manipulation of data for reproducible research, the deposition of data in curated databases such as Dryad and Genbank, the merits of curating raw data vs. vetted data/data summaries, presenting caveats/weaknesses in research, and responsible reporting of financial sources and conflicts of interest.

BIOL 6301. Advanced Ecology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An investigation of seminal and modern concepts of ecological theory. Theoretical and empirical approaches to the study of ecology in terms of interactions between organisms and their environment and interactions among organisms at various levels of biological organization. Prerequisite: Genetics; Evolutionary Biology or equivalent; introductory ecology course or equivalent strongly recommended.

BIOL 6302. Advanced Evolutionary Biology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of evolution as the unifying discipline across the life sciences; principles of population genetics, systematics and phylogenetic theory, paleontology and macroevolution, speciation and modes of adaptation; application of evolutionary theory to questions in molecular biology, developmental biology, ecology, animal behavior and biomedicine. Prerequisite: Genetics; Principles of Evolution or equivalent.

BIOL 6309. Cellular Biology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of cellular morphology and function at the ultrastructural and molecular level. Prerequisite: Organic chemistry and 18 hours of biology courses or approval by the department head.

BIOL 6311. Methods in Ecology. 3 Credit Hours (Lecture: 2 Hours, Lab: 3 Hours).
Introduction to the application of statistical, mathematical and computational tools to questions in ecology. Classic and current conceptual and mathematical approaches to population, community, ecosystem, disease, and evolutionary ecology. Hands-on application of computational tools for quantitative analysis of ecological datasets using R. Emphasis on the development of scientific hypotheses, employment of modern statistical and computational approaches for parameter estimation, and evaluation of alternate models using strength of evidence. The course will also explore the different statistical schools of thought common in ecological research, including frequentist, likelihood-based (including information-theoretic), and Bayesian approaches. Prerequisite: Advanced Ecology Lab Fee: $2.

BIOL 6320. Environmental and Restoration Biology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Study of human interactions with plants and animals within ecosystems with an emphasis on conservation and restoration ecology. Outdoor laboratories and restoration of plant communities are required.

BIOL 6321. The Aquatic Environment. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the basic principles involved in the ecology of the aquatic community including biotic and abiotic relationships. Emphasis placed on the sources of water contamination to include the effects of the contamination upon the changes in water chemistry and their possible biological implication. Prerequisite: 18 hours of biology and 2 semesters of chemistry courses or approval by the department head.

BIOL 6322. Methods in Evolutionary Biology. 3 Credit Hours (Lecture: 2 Hours, Lab: 3 Hours).
Introduction to the application of statistical, mathematical and computational tools to questions in evolutionary biology. Topics may include: Introduction to phylogenetic theory, including advanced construction of phylogenies, dating phylogenetic splits using molecular data, detecting historical admixture and conducting comparative analyses; Analyzing population genomic data, including estimating population substructure and gene flow, estimating genetic diversity and detecting loci under selection; Application of basic game-theoretic models to the study of frequency-dependent selection, including the evolution of sex and cooperative behavior. Estimation of heritability for quantitative traits, as well as linear and nonlinear selection gradients from empirical data. Prerequisite: Genetics; Evolutionary Biology or equivalent Lab Fee: $2.

BIOL 6330. Development of Modern Biological Concepts. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the development of biological concepts and their impact upon science and society. Biographical as well as contemporary readings will be involved.

BIOL 6331. Conservation Biology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Principles of conservation biology and the major issues that define the discipline. Study of value, threats to, and conservation of biodiversity. Conservation issues at the population and species levels, policy, and practical applications of the science will be included. Prerequisite: Undergraduate Genetics and undergraduate Ecology, or approval of department head.

BIOL 6350. Environmental Microbiology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is online. Students will learn about the microorganism populations in the soil and water, and then learn about how they impact these environments, both positively and negatively, while learning about DNA sequencing technologies, biochemistry, and biogeochemical cycling.

BIOL 6360. Bacterial Genetics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to be an advanced course in molecular biology and genetics, focusing on DNA structure, transcription, translation, and regulation of the central dogma of life. Bacteria (E. coli) are used as a model system due to their simplicity and extensive information available. Prerequisite: undergraduate cell biology or genetics.

BIOL 6370. Population Genetics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A general introduction to mathematical population genetics and evolutionary theory. Theoretical and empirical approaches to the study of the effects of mutation, recombination, selection, and migration on the genetic composition of populations through time and across space. Modern concepts in both theoretical and experimental population genetics are covered, including quantitative trait loci (QTL) analyses, coalescent theory and demographic modeling, multivariate techniques for analyzing genetic data and site-frequency spectra. Prerequisite: Genetics; Adv. Evolutionary Biology or equivalent; Methods in Evolutionary Biology strongly recommended.

BIOL 6371. Evolution of Development. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Mixed format course (lecture, readings, discussion) surveying foundations and current developments in Evo-Devo. The course will integrate evolutionary biology and developmental biology in a common framework, focusing on the evolution of developmental pathways as a basis for the evolution of animal morphology. Topics will include the following: the developmental toolkit, HOX genes, and debates regarding evolution of regulatory elements vs. secreted proteins; evolution of the vertebrate body plan with emphasis on neural crest; evolution and development of specific organ systems, such as the eye and tetrapod limb, mechanisms of growth and development of cancer; targets of selection during ontogeny; morphogenesis and patterning mechanisms; roles of developmental robustness, heterochrony, and modularity in generating macro-scale evolutionary patterns. Prerequisite: Methods in Evolutionary Biology, Advanced Evolutionary Biology.

BIOL 6372. Macroecology and Biogeography. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Mixed format course (lecture, readings, discussion) surveying foundations and current developments macroecology and biogeography. The course will integrate evolutionary and ecology principles as applied to large spatial and temporal scales to understand statistical patterns of distribution, abundance, and diversity of organisms and ecosystems. Topics will include the following: latitudinal and elevational gradients in diversity; species-area curves and island biogeography; ecogeographic 'rules' and the evolution of phenotypic variation; relationships between body size, range size, and abundance; relationships between genome size and complexity and organismal longevity, body size, and abundance; site-occupancy and species distribution modeling. Students will use public databases or otherwise compile a dataset suitable for macroecological or biogeographical analysis, analyze, interpret, and present their results. Prerequisite: Methods in Ecological Research, Advanced Ecology.

BIOL 6390. Special Topics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Selected topics in an identified area of biology. May be repeated for credit as topics vary.

Department of Chemistry, Geoscience, and Physics

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Master of Science in Environmental Science

The Master of Science degree in Environmental Science offers built-in #exibility to best suit the needs of our students and their desired career paths. With both thesis and non-thesis options available and online offerings for coursework, this degree works for students in any stage of their careers.

With af#liations with the Texas Institute for Applied Environmental Research (https://www.tarleton.edu/tiaer/) (TIAER), Texas A&M AgriLife (https://agriliferesearch.tamu.edu/), the Center for Agribusiness Excellence (https://www.tarleton.edu/cae/) (CAE), and others, the interdisciplinary Environmental Science master's program is focused on addressing issues both locally and globally. With af#liated faculty spanning from engineering to policy, natural resources, chemistry, geography, and biology. This diverse program with concentrations in science and social policy is customizable and #exible to meet the needs of professionals and students alike. Hands-on experience in both the #eld and laboratory is emphasized in this program. Our students are driven to seek answers to the problems of today's ever-diversifying society.

A highly sought-after program, the M.S. in Environmental Science offers many career options:

- Environmental consultant
- Environmental education of#cer
- Environmental manager
- Nature conservation of#cer
- Sustainability consultant
- Waste management of#cer
- Water quality scientist
- Environmental chemist

Special Requirements

Students pursuing the thesis option will be expected to prepare a thesis based on original research. A thesis proposal will be prepared for approval by the student's advisory committee and the College of Graduate Studies before the initiation of research. The thesis proposal and the thesis will be in conformance with the guidelines and deadlines established by the College of Graduate Studies. The thesis must demonstrate the capability of the student to perform original research and to present the results obtained from such research in a clear, concise, and well-organized manner. Students pursuing the non-thesis option will take six hours of additional coursework instead of the thesis as approved by their committee.

Students pursuing the non-thesis option will be expected to undertake a comprehensive examination in the final semester of their coursework. Comprehensive exams are administered by a committee of three or more faculty whose courses have made up a significant proportion of the graduate student's studies while at Tarleton and is chaired by the adviser for their chosen concentration. These examinations are comprehensive and intensive, with an expectation of demonstration of mastery of the coursework and program.

Further information on thesis and comprehensive exam requirements can be found in the department's graduate handbook.

Master of Science degree in Environmental Science Program Requirements

ENVS 5185	Graduate Seminar [1]	1
ENVS 5185	Graduate Seminar [1]	1
ENVS 5185	Graduate Seminar [1]	1
ENVS 5185	Graduate Seminar [1]	1
ENVS 5460	Applied Remote Sensing	4
Select one of the following:		3
ENVS 5370	Research & Analytical Methods	
WSES 5380	Research Writing for Agricultural and Environmental Science	
Select one of the following:		3
ENVS 5362	Environmental Policy	
SOCI 5306	Water Policy	
Select one of the following:		3
ENVS 5345	Advanced Oceanography	
ENVS 5310	Environmental Geology	
Take 6 credits of qualifying graduate electives as approved by advisor and department (BIOL, CHEM, GEOL, GEOG, ENVS, POLI, SOCI, WSES)		6
Total Hours		**23**

Environmental Science - Non-thesis option

ENVS 5331	Advanced Meteorology	3
Select one of the following		3
ENVS 5311	Environmental Chemistry	
ENVS 5314	Environmental and Restoration Biology	
Take 7 credits of qualifying graduate electives as approved by advisor and department (BIOL, CHEM, GEOL, GEOG, ENVS, POLI, SOCI, WSES)		7
Total Hours		**13**

Environmental Science - Thesis Option

ENVS 5331	Advanced Meteorology	3
ENVS 5088	Thesis (Thesis proposal must be accepted before registering for this course)	6
Total Hours		**9**

Environmental Social - Policy - Non-thesis option

Select two of the following		6
ENVS 5301	International Environmental Issues	
ENVS 5312	Environmental Law	
SOCI 5386	Problems in Sociology	
Take 7 credits of qualifying graduate electives as approved by advisor and department (BIOL, CHEM, GEOL, GEOG, ENVS, POLI, SOCI, WSES)		7
Total Hours		**13**

Environmental Social-Policy - Thesis option

Select one of the following		3
ENVS 5301	International Environmental Issues	
ENVS 5312	Environmental Law	
SOCI 5312	Environmental Sociology	
ENVS 5088	Thesis (Thesis proposal must be accepted before registering for this course.)	6
Total Hours		**9**

Chemistry Courses

CHEM 5086. Chemical Problems. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 1-6 Hours).
Independent research in the laboratory or in the library under the guidance of a member of the graduate faculty. Up to 6 hours may be taken.

CHEM 5310. Environmental Chemistry. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Study of the impact of chemistry on the environment to include topics on air, water, and soil pollution, with special emphasis on water. Beneficial chemical modification of the environment will be covered.

CHEM 6389. Comprehensive Exam Review. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

Environmental Science Courses

ENVS 5086. Environmental Problems. 1-3 Credit Hours (Lecture: 0 Hours, Lab: 1-3 Hours).
Independent research under the supervision of an instructor. A formal report will be submitted to the instructor. A student may not count more than 6 hours of Environmental Science problems toward a degree. Lab fee $2.

ENVS 5088. Thesis. 1-6 Credit Hours (Lecture: 1-6 Hours, Lab: 0 Hours).
Scheduled when the student is ready to begin the thesis. No credit until the thesis is completed.

ENVS 5185. Graduate Seminar. 1 Credit Hour (Lecture: 1 Hour, Lab: 0 Hours).
A graduate seminar with content varying according to the needs and experiences of students and the instructor of record. May be repeated for up to four hours credit as content varies.

ENVS 5300. The Regulatory Environment. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A survey of local, state, national, and international regulatory agencies to include their organization and authority. Case studies of environmental problems and legislated regulations are covered.

ENVS 5301. International Environmental Issues. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A seminar on environmental politics and policy on the international level. The focus of this course is upon international environmental policy with particular attention paid to the agreements and treaties made by nations to shape and implement environmental policy, plus a comparative study of how other nations and states address the environment.

ENVS 5305. Environmental Ethics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This class provides a broad overview of environmental ethics with a focus on practical solutions to ethical problems. Special consideration will be given to the ethical concerns that emerge from the changing relationships between humankind and the natural and built environment. Credit will not be awarded for PHIL 6305 or ENVS 6305 if either one of the PHIL 5305 or ENVS 5305 has already been taken.

ENVS 5310. Environmental Geology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Explores the physical controls geology imparts to the global ecosystem through systems analysis of geologic processes. Focus on the interaction between major geologic and environmental systems, including the rock cycle, weathering and erosion, soil, structures, mass wasting, plate structure and kinematics, mapping, engineering geology, hydrogeology, energy resources, hazards, waste management, and the effects of changing climate. Prerequisites: At least 4 contact hours of Geology, and 4 contact hours of Chemistry.

ENVS 5311. Environmental Chemistry. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Study of the impact of chemistry on the environment to include topics on air, water, and soil pollution, with special emphasis on water. Beneficial chemical modification of the environment will be covered.

ENVS 5312. Environmental Law. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Focuses on the role of the American judiciary with respect to environmental policy and law, with particular emphasis on judicial review of environmental legislation and regulations, state-versus-federal environmental matters, and judicial review and interpretation of environmental treaties to which the United States is a party.

ENVS 5313. Sustainability Policy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This class focuses on the world movement towards sustainability, urban sustainability, rural sustainability, and the use of sustainability benchmarks. This class will also focus on rationales for creating sustainability reports, public policy analysis using sustainability reports, and the creation of sustainability reports. Credit will only be awarded for one of ENVS 5313 and ENVS 6313.

ENVS 5314. Environmental and Restoration Biology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Study of human interactions with plants and animals within ecosystems with an emphasis on conservation and restoration ecology. Outdoor laboratories and restoration of plant communities are required.

ENVS 5320. Issues in Water Resources. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will provide a broad introduction to the critical issues relating to the world's freshwater resources. Students will examine the occurrence, use, management, and conservation of water and water resources in the U.S. and the world. Students will develop an understanding of the history and current issues in water resources and the environmental problems and political response to these issues.

ENVS 5325. Environmental Hydrology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An examination of the processes that govern the earth's hydrologic cycle such as precipitation, evaporation and transpiration, runoff, infiltration and ground water and an exploration of anthropogenic effects on the hydrologic cycle. Topics include land-atmosphere interactions, movement of water in subsurface environments, contaminant transport in groundwater systems, streamflow generation, surface-water flow dynamics, urban runoff and flood control.

ENVS 5329. Applications of Geographic Information Systems in Environmental Science. 3 Credit Hours (Lecture: 2 Hours, Lab: 3 Hours).
Environmental and natural resource applications of Geographic Information Systems. Introduction to spatial analysis and 3-D analysis. The availability and uses of digital resources. Prerequisite: EASC 2320. Lab fee $2.

ENVS 5331. Advanced Meteorology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of the Earth's atmosphere and processes within it. Topics include weather, climate, heating, adiabatic processes, precipitation types and formation, wind currents, geostrophic effects, prediction, and warnings. Historical events will be discussed in context of modern understanding.

ENVS 5335. Watershed Modeling. 3 Credit Hours (Lecture: 2 Hours, Lab: 3 Hours).
The course will explore commonly used watershed models that can be used in linking sources of pollutants to receiving waterbodies. The course will explore large watershed, streamflow, water quality, urban watershed, and agricultural watershed models. Information will include model calibration and evaluation techniques.

ENVS 5341. Environmental Site Assessment. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduction to Phase I and Phase II investigations, principles of siting and installation of monitoring wells, a review of sampling methods and sample design, and the use of water quality data to characterize subsurface contamination. Prerequisite Course(s): Hydrogeology or consent of Department Head.

ENVS 5345. Advanced Oceanography. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An integrated study of our oceans from the physical, chemical, biological, and geological aspects. Theory reinforced by practical field experience. Include analysis of seawater components, the effects of pollutants, and the impacts of chemical processes on marine organisms, as well as studying the physical conditions and physical processes within the ocean such as waves, currents, eddies, gyres and tides; the transport of sand on and off beaches; coastal erosion; and the interactions of the atmosphere and the ocean.

ENVS 5362. Environmental Policy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of the politics of the natural environment with emphasis on the role of government in environmental protection.

ENVS 5370. Research & Analytical Methods. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Research and analytical methods for Environmental Scientists. Explores the various approaches, methodologies, and philosophies behind research techniques.

ENVS 5380. Research and Writing in Agriculture and Environmental Science. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Preparation of writing samples, technical reviews, and/or professional manuscripts related to various topics in agriculture or environmental science. Prerequisite: Approved research methodology course. Cross-listed with AGRI 5380.

ENVS 5390. Topics in Environmental Science. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Scientific aspects of varied environmental topics, which may include waste disposal, wetlands, air pollution, energy, bioremediation, or watershed analysis. May be repeated for credit as topics vary. Prerequisites: 12 hours of science (including six hours of chemistry) or approval of department head.

ENVS 5460. Applied Remote Sensing. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
An introduction to the features and interpretation of remotely sensed images from airborne and satellite platforms. Formats of imagery will include radar, thermal, and multispectral. Focus on interpretation of images for various usages, including agriculture, forestry, geology, urban landscapes, and geography. Factors affecting acquisition of a variety of features will be discussed. Introduction to the theory of color sensing and interpretation is included. Lab fee: $2.

ENVS 6305. Environmental Ethics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This class provides a broad overview of environmental ethics with a focus on practical solutions to ethical problems. Special consideration will be given to the ethical concerns that emerge from the changing relationships between humankind and the natural and built environment. Credit will not be awarded for PHIL 6305 or ENVS 6305 if either one of the PHIL 5305 or ENVS 5305 has already been taken.

ENVS 6313. Sustainability Policy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This class focuses on the world movement towards sustainability, urban sustainability, rural sustainability, and the use of sustainability benchmarks. This class will also focus on rationales for creating sustainability reports, public policy analysis using sustainability reports, and the creation of sustainability reports. Credit will only be awarded for one of ENVS 5313 and ENVS 6313.

Geology Courses

Physics Courses

PHYS 5303. Astronomy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Selected topics in astronomy appropriate for public school teachers. Course may be repeated when topic changes.

Department of Mathematics

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The Department of Mathematics

The Department of Mathematics offers two graduate programs:

- Master of Science in Mathematics
- Master of Science in Data Science

Master of Science in Mathematics

Purpose

The MS in Mathematics provides a rigorous depth and breadth of mathematical study for people who plan to work as applied mathematicians in industry or government agencies, as well as those who wish to continue their studies at the doctoral level. In addition, the MS in Mathematics is designed to enhance and enrich training in mathematics and mathematics education for persons who teach at the secondary level or in higher education. The department offers the Master of Science degree with thesis and non-thesis tracks. For further information about the graduate program, visit the departmental web site at https://www.tarleton.edu/math (http://www.tarleton.edu/math/) or contact our Graduate Mathematics Coordinator at gradmath@tarleton.edu.

Admission Requirements

This degree program is interdisciplinary and is available to students with a bachelor's degree in any field. Applicants are required to have either a minimum GPA of 3.0 (4.0 scale) on last 60 hours or on all completed courses.

Students should have an undergraduate degree in mathematics or a related field. Those lacking the appropriate background will be required to complete leveling work. The departmental graduate advisor, in consultation with the mathematics faculty, will review the student's transcript and determine if leveling work is needed. Leveling requirements generally include the following courses:

- MATH 2413, 2414, 3306, 3311, 3318, 3433, 4309, 4332

The departmental graduate advisor will assist the student in selecting a graduate committee. The committee should consist of a minimum of three members, at least two of whom are from the graduate faculty of the Department of Mathematics. The third may be chosen from the graduate faculty of a department in which the student takes supportive graduate course work.

Program Requirements

MATH 5305	Statistical Models	3
MATH 5308	Abstract Algebra	3
MATH 5320	Real Analysis I	3
MATH 5350	Linear Algebra	3
MATH 5398	Research Analysis	3
9 hours from 5000-level MATH courses except MATH 5688 and MATH 5699		9
6 hours from approved 5000-level MATH courses, 5000-level supporting courses, or thesis		6
Total Hours		**30**

Comprehensive Examination

The department requires a written comprehensive examination for the MS in Mathematics degree. The comprehensive examination will be administered by the student's graduate committee during the last semester of the program. If the result of the written comprehensive examination is less than satisfactory, additional course work in areas of weakness may be recommended before rescheduling the examination.

Master of Science in Data Science

Purpose

The MS in Data Science is designed to provide a rigorous depth and breadth of study for persons who plan to work as data scientists in industry or government agencies. The department offers two concentrations for this degree program: General Data Science or Mathematical Data Science. For further information about the graduate program, visit the departmental web site at https://www.tarleton.edu/math (http://www.tarleton.edu/math/) or contact our Graduate Mathematics Coordinator at gradmath@tarleton.edu.

Admission Requirements

This degree program is interdisciplinary and is available to students with a bachelor's degree in any field. Applicants are required to have either a minimum GPA of 3.0 (4.0 scale) on last 60 hours or on all completed courses.

The departmental graduate advisor, in consultation with the mathematics faculty, will review the student's transcript and advise them in choosing the appropriate concentration.

The capstone course instructor will assist the student in selecting a graduate capstone research committee. The committee should consist of a minimum of three members, at least two of whom are from the graduate faculty of the Department of Mathematics. The third may be chosen from the graduate faculty of a department in which the student takes supportive graduate course work.

Program Requirements

MATH 5303	Programming Skills for Data Science	3
MATH 5364	Data Science I	3
MATH 5086	Advanced Special Problems in Mathematics	3
STAT 5305	Statistical Models	3
Electives (Choose 9 hours from the following)		9
COSC 5361	Deep Neural Networks	
CPEN 5341	Advanced Algorithms	
CPEN 5342	Parallel Computing and Algorithms	
CPEN 5343	Advanced Computer Architecture	
CPEN 5351	Introduction to Convex Optimization	
CPEN 5366	Robot Vision	
CPEN 5379	Performance of Computer and Communication Networks	
EDAD 5309	Legal Issues in School Leadership	
EDAD 5317	Public School Fin Fiscal Management	
EDAD 5318	Adm Law and Personnel Administration	
EDAD 5339	Processes of Educational Leadership	
ENVS 5313	Sustainability Policy	
ENVS 5329	Applications of Geographic Information Systems in Environmental Science	
PSYC 5322	Psychometrics	
PSYC 5323	Mathematical Psychology	
PSYC 5324	Behavioral Data Science	
5000-level MATH and STAT courses		
5000-level courses in related disciplines, with department head approval		
Total Hours		**21**

General Data Science

MATH 5302	Mathematical Foundations for Data Science	3
MATH 5365	Applications of Data Science	3
STAT 5304	Introduction to Statistical Models	3
Total Hours		**9**

Mathematical Data Science

MATH 5350	Linear Algebra	3
MATH 5366	Data Science II	3
STAT 5310	Advanced Statistical Methods	3
Total Hours		**9**

Capstone Research Experience

The MS in Data Science culminates in a capstone research experience, where the student will apply data science techniques to an interdisciplinary project. Each student will produce a final written report detailing their research findings and will give an oral presentation towards the end of the capstone course. Both the written report and oral presentation will be evaluated according to the departmental rubric.

Mathematics Courses

MATH 5086. Advanced Special Problems in Mathematics. 1-3 Credit Hours (Lecture: 0 Hours, Lab: 1-3 Hours).
Special problems in mathematics. Work may be either theory or laboratory. May be repeated with approval of the department head for additional credit. Prerequisite: Approval of department head.

MATH 5088. Thesis. 1-6 Credit Hours (Lecture: 1-6 Hours, Lab: 0 Hours).
Scheduled when the student's committee chair determines the student is ready to begin the thesis. No credit is earned until the student has enrolled in at least 6 credit hours of thesis and the thesis is certified as completed by the student's committee, at which time the student will be awarded 6 credit hours of thesis. Prerequisites: 18 hours of approved graduate credit toward the degree and consent of the student's committee.

MATH 5302. Mathematical Foundations for Data Science. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An overview of calculus, probability theory, linear algebra, and proof writing at an accelerated pace. Mathematical software will be used throughout the course.

MATH 5303. Programming Skills for Data Science. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduction to core technology and programming skills for data science such as SQL, Python, and R.# Additional topics may include parallelized algorithms, no-code workbenches, model/environment storage and deployment, GIS tools, AutoML, and user interfaces.

MATH 5304. Scientific Computing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduction to scientific computing, emphasizing C/C++, Cuda, symbolic computing, and other topics selected by instructor such as Matlab, Mathematica, Fortran, Linux scripting, JavaScript, Python, R, OpenGL, and ArcGIS. Prerequisites: Graduate standing.

MATH 5305. Statistical Models. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Basics of experimental design, mathematical theory for linear and logistic regression models in the multivariate case, and diagnostics and remedial measures for these models. Other topics will be selected from ridge/lasso regression, principle components, canonical correlations, factor analysis, and discriminant analysis. Students may not receive credit for both MATH 5305 and STAT 5305. Prerequisite: The equivalent of an undergraduate course in probability and statistics or STAT 5304.

MATH 5306. Dynamical Systems. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Advanced study of dynamical systems. Topics will be selected from discrete and continuous dynamical systems, sensitivity analysis, models of the physical, life, and social sciences, and bifurcation analysis. Prerequisites: Differential Equations and Linear Algebra.

MATH 5308. Abstract Algebra. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A course in abstract algebra, starting with group theory, quotient groups, homomorphisms, permutation representations, and the Sylow theorems. Additional topics will be selected from direct and semidirect products; the fundamental theorem of finitely generated abelian groups; ring theory; module theory; vector spaces; field theory; Galois theory; and algebraic geometry. Credit will not be awarded for both MATH 5308 and MATH 6308. Prerequisites: An undergraduate course in abstract algebra.

MATH 5309. Complex Analysis I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introduction to complex analysis. Topics will be selected from elementary operations and analytic functions, curves and integrals, power series, Cauchy¿s theorem, zeroes and singularities of analytic functions, Laurent series, maximum principle, analytic continuation, harmonic functions, conformal mapping and transformations. Prerequisite: A two semester sequence in calculus.

MATH 5310. Complex Analysis II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Conformal mapping, harmonic functions, infinite products, Weierstrass factorization theorem, Mittag-Leffler's theorem, normal families, Riemann mapping theorem, analytic continuation, Picard's theorems and selected topics. Prerequisite: MATH 5309.

MATH 5312. Design of Experiments. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Students will learn about planning and conducting an experiment. Data analysis using appropriate software is covered. Prerequisite: MATH 5305 or approval of department head.

MATH 5320. Real Analysis I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introduction to measure theory and integration, beginning with outer measures, sigma-algebras, Borel sets, measurable functions, and Lebesgue measure. Further topics include convergence of measurable functions, Luzin’s theorem, the monotone convergence theorem, the dominated convergence theorem, differentiation, the Hardy-Littlewood maximal inequality, and the Lebesgue differentiation theorem. Prerequisite: An undergraduate course in real analysis.

MATH 5321. Real Analysis II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A second course in real analysis, with topics selected from product measures, the Fubini-Tonelli theorem, Lebesgue integration in n-dimensional Euclidean space, metric spaces, normed vector spaces, L-p spaces, Holder’s inequality, Hilbert spaces, and Fourier analysis. Prerequisite: MATH 5320.

MATH 5324. Continuous Models in Biomathematics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Study and application of linear and nonlinear differential equations and systems of differential equations in biological settings. Stability of solutions, phase planes, bifurcations and general analysis of these models will be considered. Data-fitting methods and statistics will be discussed. Prerequisite: First semester calculus.

MATH 5325. Discrete Models in Biomathematics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Study and application of linear and nonlinear difference equations and systems of difference equations in biological settings. Stability of solutions, phase planes, periodic doubling, bifurcations and general analysis of these models will be considered. Data-fitting methods and statistics will be discussed.

MATH 5330. Mathematical Modeling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An advanced course in mathematical modeling. Topics will be selected from scaling, dimensional analysis, regular and singular perturbation theory, stability theory, and asymptotic analysis. Prerequisites: Differential Equations and Linear Algebra.

MATH 5340. Topology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Axioms of a topological space; open and closed sets; compactness; connectedness; basis; product topology; subspaces; metric spaces; and quotient topologies. Additional topics will be selected from completeness, continua, separation axioms, metrization theorems, Baire spaces, and algebraic topology. Credit will not be awarded for both MATH 5340 and MATH 6340. Prerequisites: An undergraduate course in topology or analysis.

MATH 5350. Linear Algebra. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An advanced course in linear algebra. Topics to be selected from linear spaces and operators, canonical forms, quadratic forms and optimization, computation and condition, and compatible systems. Prerequisite: The equivalent of an undergraduate course in linear algebra.

MATH 5351. Applied Numerical Linear Algebra. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Topics include methods for solving linear systems; Gram-Schmidt process; least squares; inverse and pseudoinverse operators; LU, QR, SVD and other decompositions with applications of linear algebra selected from: Markov Chains, Hilbert spaces, spectral theory, Fourier and associated transforms, difference equations, curve fitting, Green's functions, extremal problems, graph Laplacian, PageRank, operator representation and interpolation, Jordan form, and LAPACK. Prerequisite: A course in linear algebra or instructor approval.

MATH 5360. Numerical Analysis. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An advanced study of numerical analysis. Topics will be selected from linear systems, approximation theory, numerical differential and integral equations, integration theory. Prerequisite: MATH 3360.

MATH 5361. Iterative Methods. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Matrix and vector norms, conditioning, iterative methods for the solution of larger linear systems and eigenvalue problems. Krylov subspace methods and methods for stiff systems of differential equations. Other topics to be chosen by the instructor. Prerequisites: MATH 5360 and a course in computer programming.

MATH 5364. Data Science I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course centers on the identification, exploration, and description of new patterns contained within data sets using appropriate software. Selected topics will be chosen from data exploration, classification, cluster analysis, and model evaluation and comparison. Credit will not be awarded for both MATH 5364 and MATH 6364. Prerequisites: Probability and Statistics.

MATH 5365. Applications of Data Science. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Data science topics that are not among the core components covered in MATH 5364 and MATH 5366 but are widely used in the field. Topics will be selected to align with student interest and the current state of data science. Prerequisite: MATH 5364.

MATH 5366. Data Science II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course centers on the identification, exploration, and extraction of new patterns from natural language text documents using appropriate software. Selected topics will be chosen from association analysis, anomaly detection, text mining, dimensionality reduction, and model evaluation and comparison. Credit will not be awarded for both MATH 5366 and MATH 6366. Prerequisite: MATH 5364.

MATH 5370. History of Mathematics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A historical and philosophical development of mathematics from antiquity to the present. Mathematical topics are presented in a historical and philosophical setting not only to provide a unifying theme, but also to illustrate how the evolution of mathematical ideas finally led to modern concepts in the field. Credit will not be awarded for both MATH 5370 and MATH 6370. Prerequisite: 6 advanced hours in mathematics.

MATH 5371. Euclidean and Non-Euclildean Geometries. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course focuses on important geometric concepts of Euclidean and non-Euclidean geometries from an axiomatic perspective. Technology will be included where appropriate. Prerequisite: 3 hours of undergraduate geometry.

MATH 5373. Theory of Functions. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to emphasize the role of function as the key unifying concept of mathematics and to extend the understanding of the structural foundations of mathematics. The properties of various families of functions will also be studied. Prerequisite: 24 hours of MATH, including MATH 2413.

MATH 5375. Statistical Reasoning and Probability. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course focuses on statistical reasoning and decision making by extending the elements of probability and statistics introduced in an undergraduate course. Topics may include probability theory, distribution functions, statistical inference, sampling methods, regressional analysis, and ANOVA. Technology will be incorporated where appropriate. Prerequisite: 3 hours of undergraduate statistics.

MATH 5376. Algebraic Structures. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines algebraic structures in secondary and post-secondary mathematics from an advanced perspective. Analysis of algebraic concepts and underlying theory, along with the appropriate integration of manipulatives and technology in accordance with the standards of the National Council of Teachers of Mathematics, will be emphasized. Prerequisite: 24 hours of MATH at the undergraduate level, including Calculus.

MATH 5377. In-Depth Mathematical Reasoning. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of mathematics from an advanced perspective, taking into account not only the interconnections among topics but their relationship to higher mathematics. Important new mathematical insights and understandings will be revealed in its structure and its applicability. The focus will be on concept analysis, problem analysis, and mathematical connections as well as mathematical habits of mind. Prerequisite: 24 hours from MATH, including MATH 2413.

MATH 5378. Technology-Aided Mathematics-. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Students will engage in mathematical problem-solving using technological tools. Technologies may include graphing handhelds, data collection devices, computer software packages, and internet resources. This course may be repeated for credit as the topic changes. Prerequisite: 24 hours of MATH, including MATH 2413.

MATH 5379. Trends and Issues in Research. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
In this seminar-style course, students have a forum for discussion and presentation of inquiries into the history, current trends, and issues pertaining to analysis of research trends in mathematics education and its effect on policy, curriculum, and the teaching and learning of mathematics. Prerequisite: 24 hours of MATH, including MATH 120.

MATH 5380. Selected Topics in Mathematical Theory. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An examination of topics in mathematical theory appropriate for secondary mathematics educators. Topics will be selected from geometry and topology, number theory, modern algebra, and library research in mathematics. This course may be repeated for credit as the topic changes. Prerequisite: Approval of department head.

MATH 5386. Advanced Special Problems in Mathematics. 1-3 Credit Hours (Lecture: 0 Hours, Lab: 1-3 Hours).
Special problems in mathematics. Work may be either theory or laboratory. May be repeated with approval of the department head for additional credit. Prerequisite: Approval of department head.

MATH 5390. Selected Topics in Mathematics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An examination of topics in applied mathematics. Topics for study will be selected from advanced mathematical modeling, advanced numerical techniques, practical optimizations, calculus of variations, dynamic programming, integral equations, optimal control, perturbation methods, and library research in applied mathematics. This course may be repeated for credit as the topic changes. Prerequisite: Approval of department head.

MATH 5398. Research Analysis. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An overview of the components of research in various areas of mathematics. These areas will include pure mathematics, applied mathematics, mathematics education, and statistics. The course will include a study of reviewing contemporary and classical literature, presenting research, and how to submit an article for publication. Prerequisites: Graduate standing in the mathematics department or approval of the department head.

MATH 5699. Internship. 1-6 Credit Hours (Lecture: 1-6 Hours, Lab: 0 Hours).
The student will complete a supervised and comprehensive work experience in a mathematics-related position with a public or private business organization for career preparation in a mathematics-related enterprise. Credit in this course does not count towards the 24 hour requirement for the M.S. in Mathematics. Prerequisite: Mathematics graduate student with department head approval. Field assignment fee $75.

MATH 6086. Advanced Special Problems in Mathematics.. 1-3 Credit Hours (Lecture: 0 Hours, Lab: 0 Hours).
Special problems in mathematics. Work may be either theory or laboratory. May be repeated with approval of the department head for additional credit. Prerequisite: Approval of department head.

MATH 6088. Dissertation. 1-6 Credit Hours (Lecture: 1-6 Hours, Lab: 0 Hours).
Scheduled when the student is prepared to begin the scholarly investigation of a topic acceptable to the dissertation committee. The dissertation must provide evidence that the candidate has pursued a coherent program of research related to the student's areas of academic specialization, the results of which make a significant, original contribution to the discipline. Prerequisite: Doctoral candidacy in applied mathematics.

MATH 6098. Research. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 0 Hours).
Doctoral students conduct original research on a variety of topics in applied mathematics toward a doctoral dissertation. Course will be graded as satisfactory or unsatisfactory. Prerequisites: Doctoral candidacy in applied mathematics.

MATH 6185. Seminar. 1 Credit Hour (Lecture: 0 Hours, Lab: 0 Hours).
A weekly colloquium consisting of research presentations by faculty and students, including speakers from Tarleton and other institutions. Prerequisites: Graduate standing.

MATH 6303. Programming Skills for Data Science. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduction to core technology and programming skills for data science such as SQL, Python, and R.# Additional topics may include parallelized algorithms, no-code workbenches, model/environment storage and deployment, GIS tools, AutoML, and user interfaces. Credit will not be awarded for both MATH 5303 and MATH 6303.

MATH 6308. Abstract Algebra. 3 Credit Hours (Lecture: 0 Hours, Lab: 0 Hours).
A course in abstract algebra, starting with group theory, quotient groups, homomorphisms, permutation representations, and the Sylow theorems. Additional topics will be selected from direct and semidirect products; the fundamental theorem of finitely generated abelian groups; ring theory; module theory; vector spaces; field theory; Galois theory; and algebraic geometry. Credit will not be awarded for both MATH 5308 and MATH 6308. Prerequisite: A course in abstract algebra.

MATH 6309. Complex Analysis I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A course in complex analysis, starting with axioms of the complex numbers, analytic functions, the Cauchy-Riemann equations, harmonic functions, and conformal mappings. Additional topics will be selected from line integrals, power series, Laurent series, the residue calculus, and hyperbolic geometry. Credit will not be awarded for both MATH 5309 and MATH 6309. Prerequisite: An undergraduate course in analysis.

MATH 6310. Complex Analysis II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Conformal mapping, harmonic functions, infinite products, Weierstrass factorization theorem, Mittag-Leffler's theorem, normal families, Riemann mapping theorem, analytic continuation, Picard's theorems and selected topics. Credit will not be awarded for both MATH 5310 and MATH 6310 Prerequisite: MATH 5309, MATH 6309, or a graduate course in complex analysis.

MATH 6313. Probability Theory I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Develops probability axioms in a measure theoretic setting, starting with sigma-fields, Lebesgue measure, random variables, and extensions using the pi-lambda theorem. Additional topics include Borel's normal number theorem; the weak and strong laws of large numbers; the Borel-Cantelli lemmas; and Markov chains. Prerequisites: MATH 5320 or approved graduate course work in real analysis that includes measure theory and integration.

MATH 6314. Probability Theory II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A second course in probability theory, with topics selected from the Poisson process, the ergodic theorem, convergence of distributions, characteristic functions, the central limit theorem, the Radon-Nikodym theorem, conditional distributions, martingales, and stochastic processes. Prerequisite: MATH 6313.

MATH 6322. Ordinary Differential Equations. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Study and applications of linear and nonlinear ordinary differential equations and their systems. Existence and uniqueness of solutions, stability theory and applications, singularities, periodic and oscillatory solutions, and other topics as time allows. Prerequisites: Graduate level real analysis and graduate level linear algebra or permission of department head.

MATH 6323. Partial Differential Equations. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Study and applications of partial differential equations. Existence and uniqueness for boundary value problems. Wave equation, heat equation, and Laplace equation will be studied. Theory for elliptic, hyperbolic, and parabolic partial differential equations. Other topics as time allows. Prerequisite: MATH 6322 or permission of department head.

MATH 6324. Dynamical Systems I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Study and applications of nonlinear difference equations (maps) and systems of difference equations, stability of solutions, phase plane, periodic doubling, bifurcations, oscillations, and chaos. Stochastic systems and other topics as time allows. Prerequisite: Graduate Linear Algebra or graduate Applied Linear Algebra, or permission by department head.

MATH 6325. Dynamical Systems II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Study and applications of nonlinear differential equations and systems of differential equations, stability of solutions, phase plane, bifurcations, periodic coefficients, and Poincare maps. Stochastic systems other topics as time allows. Prerequisite: MATH 6324 or permission of department head.

MATH 6328. Functional Analysis I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of vector spaces in the infinite-dimensional setting, starting with Hilbert spaces, the Riesz representation theorem, diagonalization of operators, Banach spaces, and the Hahn-Banach theorem. Further topics include dual spaces, the principle of uniform boundedness, locally convex spaces, and weak topologies. Prerequisites: MATH 5321 or approved graduate coursework in real analysis that includes topics such as product measures, metric spaces, and Fourier analysis.

MATH 6329. Functional Analysis II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A second course in functional analysis, with topics selected from linear operators on Banach space, the Banach-Stone theorem, Banach algebras, the Riesz functional calculus, spectral theory, C*-algebras, normal operators on Hilbert space, unbounded operators, and Fredholm theory. Prerequisite: MATH 6328.

MATH 6340. Topology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Axioms of a topological space; open and closed sets; compactness; basis; product topology; subspaces; metric spaces; and quotient topologies. Additional topics will be selected from connectedness, completeness, continua, separation axioms, metrization theorems, Baire spaces, and algebraic topology. Credit will not be awarded for both MATH 5340 and MATH 6340. Prerequisite: A course in topology or analysis.

MATH 6362. Computational Optimization Methods.. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Fundamentals of mathematical analysis underlying theory of constrained optimizations for a finite number of variables, necessary and sufficient conditions for constrained extrema of equality constraint problems, sufficient conditions for fulfillment of constraint qualification, computational methods for concave programming problems and applications. Prerequisites: MATH 5360 and MATH 5320 or approved graduate coursework in numerical analysis and real analysis.

MATH 6363. Numerical Solutions to Partial Differential Equations. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Covers finite difference methods for elliptic, parabolic, and hyperbolic problems in partial differential equations. Also, stability, consistency, and convergence results. Attention is given to computer implementations. Prerequisites: MATH 5360 or approved graduate coursework in numerical analysis; and MATH 6323.

MATH 6364. Data Science I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course centers on the identification, exploration, and description of new patterns contained within data sets using appropriate software. Selected topics will be chosen from data exploration, classification, cluster analysis, and model evaluation and comparison. Credit will not be awarded for both MATH 5364 and MATH 6364. Prerequisites: The equivalent of an undergraduate course in Probability and Statistics.

MATH 6365. Applications of Data Science. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Data science topics that are not among the core components covered in MATH 6364 and MATH 6366 but are widely used in the field, such as anomaly detection, reinforcement learning, recommender systems, geospatial analysis, natural language processing, image processing, and generative models.# Due to the rapid evolution of data science and its widespread use in diverse fields, topics will be selected to align with student interest and the current state of data science. Credit will not be awarded for both MATH 5365 and MATH 6365. Prerequisite: MATH 5364 or MATH 6364.

MATH 6366. Data Science II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course centers on the identification, exploration, and extraction of new patterns from natural language text documents using appropriate software. Selected topics will be chosen from association analysis, anomaly detection, text mining, dimensionality reduction, and model evaluation and comparison. Credit will not be awarded for both MATH 5366 and MATH 6366. Prerequisite: MATH 5364 or MATH#6364.

MATH 6370. History of Mathematics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A historical and philosophical development of mathematics from antiquity to the present. Mathematical topics are presented in a historical and philosophical setting not only to provide a unifying theme, but also to illustrate how the evolution of mathematical ideas finally led to modern concepts in the field. Credit will not be awarded for both MATH 5370 and MATH 6370. Prerequisite: 6 advanced hours in mathematics.

Statistics Courses

STAT 5304. Introduction to Statistical Models. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introduction to statistical models, including ANOVA, linear regression, and covariate models. Topics include parameter estimation, confidence intervals, and model comparison, using hypothesis testing, p-values, and Bayes factors. Prerequisite: MATH 5302.

STAT 5305. Statistical Models. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Basics of experimental design, mathematical theory for linear and logistic regression models in the multivariate case, and diagnostics and remedial measures for these models. Other topics will be selected from ridge/lasso regression, principle components, canonical correlations, factor analysis, and discriminant analysis. Students may not receive credit for both MATH 5305 and STAT 5305. Prerequisites: The equivalent of an undergraduate course in probability and statistics or STAT 5304.

STAT 5310. Advanced Statistical Methods. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Non-parametric statistics, time series analysis, Bayesian inference, and other topics in advanced statistical analysis. Prerequisite: STAT 5305 or MATH 5305.

STAT 6304. Introduction to Statistical Models. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introduction to statistical models, including ANOVA, linear regression, and covariate models. Topics include parameter estimation, confidence intervals, and model comparison, using hypothesis testing, p-values, and Bayes factors. Credit will not be awarded for both STAT 5304 and STAT 6304. Prerequisites: Graduate standing.

STAT 6305. Statisitcal Models. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Basics of experimental design, mathematical theory for linear and logistic regression models in the multivariate case, and diagnostics and remedial measures for these models. Other topics will be selected from ridge/lasso regression, principle components, canonical correlations, factor analysis, and discriminant analysis. Students may only receive credit for one of these courses: MATH 5305, STAT 5305, and STAT 6305. Prerequisites: The equivalent of an undergraduate course in probability and statistics, STAT 5304, or STAT 6304.

STAT 6310. Advanced Statistical Methods. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Non-parametric statistics, time series analysis, Bayesian inference, and other topics in advanced statistical analysis. Credit will not be awarded for both STAT 5310 and STAT 6310. Prerequisite: MATH 5305, STAT 5305, or STAT 6305.

STAT 6315. Mathematical Statistics I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Modern statistical inference, starting with probability spaces, multivariate distributions, sampling distributions, confidence intervals, order statistics, hypothesis testing, and bootstrap procedures. Additional topics include consistency, limiting distributions, maximum likelihood methods, the Rao-Cramer lower bound, asymptotic relative efficiency, and the EM-algorithm. Prerequisite: MATH 5320 or approved graduate coursework in real analysis.

STAT 6316. Mathematical Statistics II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A second course in statistical inference, with topics selected from sufficient statistics, completeness, exponential families, minimal sufficiency, likelihood ratio tests, uniformly most powerful tests, normal linear models, nonparametric statistics, and Bayesian statistics. Prerequisite: STAT 6315.

Undergraduate

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Undergraduate academic programs at Tarleton State University integrate the two necessary components of a liberal education: the broad base of knowledge essential to the education of a citizen in a democracy, and the particular knowledge and skills needed in fields of major and minor concentration essential to our modern technological society. To accomplish these goals for each student, University programs provide four choices:

1. Four-year degree programs in most academic areas, with courses necessary for certification in public teaching offered in education;
2. Pre-professional two- and three-year programs in most professional fields; and
3. Degree Completion programs that focus on maximizing students' existing Credit through recognition of prior learning and workforce credits.
4. Special programs designed to meet unusual requirements of an individual, usually consisting of a rearrangement of university-level subject matter courses for cogent reasons.

The general approach in any case is to require during the first two years an arrangement of courses presenting basic ideas and ideals of civilization and perfecting tools of the learning process. The foundations curricula for the first two years are essentially the same, except for a slight emphasis on mathematics and science for science and business majors and on language and communication skills for liberal arts majors.

Special emphasis on major and minor subjects comes in the third and fourth years. Here the choice is made by each student, normally at the end of the second year, but certainly by the end of the third year. A degree plan is developed in consultation with an academic advisor in the chosen field; thereafter, any changes in this plan must be approved by the academic advisor, department head, and the dean of the appropriate college.

Undergraduate Degree Programs

Please see the list of undergraduate programs that Tarleton offers at the following link: Undergraduate Programs (https://catalog.tarleton.edu/undergrad/programs/).

Undecided as to Major

Student Success advises all students who have not yet decided on their majors. Such students should schedule appointments with a member of this department prior to their first semester of enrollment at Tarleton. Advisors in this department refer students to campus services that help them select a major and provide academic advisement until such a selection has been made.

No secondary education degree program is available, per se. However, secondary education certification courses may be a part of the curriculum leading to most Bachelor of Arts and Bachelor of Science degree programs for the purpose of secondary teacher certification. Students should consult both the College of Education for information concerning certification requirements and the specific academic department for their recommended degree program.

Please refer to the College of Graduate Studies in this catalog for information about graduate degree programs.

Undergraduate Minors

No more than two minors may be declared in baccalaureate degree programs. Minors require a minimum of 18 hours within the minor discipline, of which 6 hours must consist of upper-level coursework completed at Tarleton State University. Please see the list of minors on the minor catalog page at the following link: Academic Minors (p. 378).

College of Agriculture and Natural Resources

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The College of Agriculture and Natural Resources includes the Department of Agricultural Education and Communication; the Division of Agribusiness and Agricultural Economics; the Department of Animal Science; and the Department of Wildlife and Natural Resources.

Graduates of the College of Agriculture and Natural Resources are known for high performance and for contributions to their professions in all areas of agriculture and natural resources including animal science, agricultural communications, agribusiness, agricultural education, agricultural industries, wildlife science, and horticulture. Many continue their education and earn graduate and professional degrees at leading universities nationwide.

The Animal Science Department offers an Animal Science B.S. with six possible concentrations: Science, Animal Production, Business, Pre-Veterinary Medicine, Meat and Food Science, and Range and Ranch Management. Certificates are available in Equine Science, Shelter Animal Medicine, and Dairy Science.

The Agricultural Education and Communication Department offers four Bachelor of Science degrees – the B.S. in Agricultural Education, the B.S. in Agricultural Services and Development with concentrations in Agri-Industries and Agencies and Interdisciplinary Agriculture; the B.S. in Agribusiness with concentrations in Agribusiness Management, Agricultural Economics, Dairy Business Management, and Personal and Small Business Financial Planning under the the Division of Agribusiness and Agricultural Economics; and the B.S. in Agricultural Communication. All programs prepare students for successful careers upon graduation.

The Wildlife and Natural Resources Department offers three Bachelor of Science degrees - the B.S. in Wildlife, Sustainability, and Ecosystem Sciences with concentrations in Wildlife Ecology and Management, Fisheries Ecology and Management, Rangeland Ecology and Management, Natural Resource Policy, Entomology, and the B.S. in Horticultural and Plant Sciences with concentrations in Horticulture Science, Horticulture Management, Horticulture Business, Soil Science, and Sustainable Agriculture and Agroecology, and the B.S. in Zoo Animal Care and Management with concentrations in Pre-Veterinary Medicine and Zoo Biology and Management. All career tracks are designed to provide graduates with the academic background to compete in the employment market and to be life-long contributors to their professions.

Tarleton is known for its practical, hands-on approach to agricultural instruction. All degree programs stress experiential learning in the classroom, internships, and other applied learning experiences. The Tarleton Agriculture Center is central to our opportunities for hands-on instruction. Agriculture Center facilities include the Southwest Regional Dairy; the Animal and Plant Science Center with a retail merchandising center (The Purple Tractor), six indoor laboratories for research and teaching in anatomy and physiology, genetics, nutrition, entomology, horticulture, soil science, and outdoor facilities consisting of four greenhouses, and 42,000 sq. ft. covered animal working area. The Agriculture Field Machinery and Fabrication Center with laboratories dedicated to metal fabrication, structures, and small engines, a computer lab, three classrooms, a multi-purpose room, and a spacious and well-equipped kitchen; the Equine Center with indoor arena, dedicated laboratory space, and stallion barn; the Meats Laboratory; Swine Center; a beef cattle feedlot; an aquaponics/hydroponics center and an indoor wildlife research and teaching laboratory/classroom. Livestock includes dairy cattle, beef cattle, horses, sheep, goats, swine, and aquatic species. The Tarleton Agriculture Center also provides excellent employment experiences for Tarleton students and research opportunities for undergraduate and graduate students.

Departments and Programs

- Department of Agricultural Education and Communication (p. 130)
  - BS in Agricultural Services & Development
  - BS in Agricultural Communication
  - BS in Agricultural Education
- Division of Agribusiness and Agricultural Economics (p. 140)
  - BS in Agribusiness
- Department of Animal Science (p. 143)
  - BS in Animal Science
- Department of Wildlife and Natural Resources (p. 151)
  - BS in Wildlife, Sustainability, & Ecosystem Sciences
  - BS in Horticultural and Plant Sciences
  - BS in Zoo Animal Care & Management

Department of Agricultural Education and Communication

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The Department of Agricultural Education and Communication was created with the flexibility to design career programs for students. Individuals seeking knowledge in education, communications, and various humanistic interactions within all segments of the agricultural industry will find interest in the department's offerings. Each program requires students to complete an internship related to their field of study prior to graduation. The Department of Agricultural Education and Communication teacher certification program (Agricultural Education), has received state and national recognition by routinely leading the state of Texas and the nation in number of graduates certified to teach.

The Department of Agricultural Education and Communication administers the Bachelor of Science degree with the following degree programs and support areas:

Bachelor of Science in Agricultural Services and Development

The BS in Agricultural Services and Development offers the following concentrations:

- Agri-Industries and Agencies: Prepares students for a career in agricultural business, industry, agriculture extension, and government agency settings. The degree provides a broad-based agricultural experience and allows the student to specialize in an area of agriculture or business.
- Interdisciplinary Agriculture: Flexible degree program to prepare students for a variety of agricultural careers. Provides broad exposure to agriculture and allows students to select a specialized focus area in the various agricultural disciplines.

General Education Requirements (p. 396)		42
ENGL 1301 [shared] [WI (p. 396)]	Composition I	
ENGL 1302 [shared] [WI (p. 396)]	Composition II	
HORT 1301	Horticulture	3
AGRI 1307	Agronomy	3
AGRI 1419	General Animal Science	4
Choose one of the following:		3
AGSD 3301	Advanced Agricultural Power Units	
AGRI 2303	Agricultural Construction I	
AGRI 2304	Introductory Metals and Welding	
AGSD 2306	Introduction to Mechanical Agriculture	
AGEC 2317 [shared]	Introductory Agricultural Economics	
AGSD 2307	SAE Development in Agricultural Education	3
or AGSD 2311	Applied Agricultural Analysis	
AGSD 4310	Leadership Development	3
Choose one of the following:		3
ACOM 3314 [WI (p. 396)]	Writing and Editing for Agricultural Publications	
ACOM 3321 [WI (p. 396)]	Communicating Agriculture to the Public	
AGSD 3302 [WI (p. 396)]	Agricultural Sales and Services	
ANSC 4300 [WI (p. 396)]	Research and Writing in Animal Science	
ENGL 3309 [WI (p. 396)]	Professional Writing	
Total Hours		**64**

Agri-Industries and Agencies

AGSD 1110	Introduction to Agricultural Services & Development	1
Choose two of the following: [shared]		
BIOL 1406	Biology for Science Majors	
BIOL 1407	Biology for Science Majors II	
CHEM 1407	Fundamentals of Chemistry	
CHEM 1311 & CHEM 1111	College Chemistry I (Lecture) and College Chemistry I (Laboratory)	
AGSD 2330	History and Philosophy of the Cooperative Extension Service	3
AGEC 3314	The Agricultural Marketing System	3
or MKTG 3312	Marketing	
AGSD 4185	Seminar	1
AGSD 4330	Agricultural Extension and Industry Methods	3
AGSD 4684	Internship	6
Choose one of the following:		3
ENGL 3309 [WI (p. 396)]	Professional Writing	
ACOM 3314 [WI (p. 396)]	Writing and Editing for Agricultural Publications	
ACOM 3321 [WI (p. 396)]	Communicating Agriculture to the Public	
AGSD 3302 [WI (p. 396)]	Agricultural Sales and Services	
AGSD 3307 [WI (p. 396)]	Premier Leadership in Agriculture	
AGSD 4305	Agricultural Mechanical Services	3
Choose one of the following:		3

AGSD 4350	Supervised Agricultural Experience Project Management	
ANSC 3301	Livestock Management	
AGSD 3101	Analysis of Agricultural Occupations	1
General Electives		5
AGSD Elective		3
Advanced Elective Hours from ACOM, AGEC, AGRI, AGSD, ANSC, ENTO, ENVS, FDSC, HORT, NUTR, RNRM, SOIL, VETE, or WSES		15
Advanced Electives		6
Total Hours		**56**

Agricultural Science with Teacher Certification

COMM 1311 [shared]	Introduction to Speech Communication	
or COMM 1315	Public Speaking	
Sophomore English Literature [shared]		
Choose two of the following [shared]:		
BIOL 1406	Biology for Science Majors	
BIOL 1407	Biology for Science Majors II	
CHEM 1407	Fundamentals of Chemistry	
CHEM 1311 & CHEM 1111	College Chemistry I (Lecture) and College Chemistry I (Laboratory)	
AGSD 3307 [WI (p. 396)]	Premier Leadership in Agriculture	3
ANSC 3301	Livestock Management	3
AGSD 3101	Analysis of Agricultural Occupations	1
AGSD 1110	Introduction to Agricultural Services & Development	1
HORT 3300	Plant Propagation	3
or HORT 3370	Floriculture Operations and Management	
AGSD 4350	Supervised Agricultural Experience Project Management	3
AGSD 4306	Agricultural Mechanical Services and Instruction	3
AGSD 4307	Program Methods	3
READ 3351 [WI (p. 396)]	Content Area Literacy	3
PSYC 3303	Educational Psychology	3
AGSD 4601	Clinical Teaching	6
AGSD 4320	Agriscience Course Building	3
EDUC 3321 [WI (p. 396)]	Foundations of Teaching: Middle and Secondary Classrooms	3
EDUC 4331	Instructional Strategies for Middle and Secondary Classrooms	3
EDSP 4361	Teaching Strategies for Adolescent Students with Learning Disabilities	3
Additional Hours from ACOM, AGEC, AGRI, AGSD, ANSC, ENTO, ENVS, FDSC, HORT, NUTR, RNRM, SOIL, VETE, or WSES *		12
Total Hours		**56**

Interdisciplinary Agriculture

AGSD 4330	Agricultural Extension and Industry Methods	3
AGSD 4684	Internship	6
AGSD 4185	Seminar	1
AGSD 3101	Analysis of Agricultural Occupations	1
Choose one of the following:		3
ACOM 3314 [WI (p. 396)]	Writing and Editing for Agricultural Publications	
ACOM 3321 [WI (p. 396)]	Communicating Agriculture to the Public	
AGSD 3302 [WI (p. 396)]	Agricultural Sales and Services	
AGSD 3307 [WI (p. 396)]	Premier Leadership in Agriculture	
ENGL 3309 [WI (p. 396)]	Professional Writing	
Agricultural Focus Area Electives (9 hours must be advanced 3xxx or 4xxx Level)		21
General Electives		5
Advanced General Electives (3xxx or 4xxx Level)		16
Total Hours		**56**

Bachelor of Science in Agricultural Education

The BS in Agricultural Education provides the skills and knowledge to become a teacher of Agricultural Science in public schools or pursue employment with government and agricultural business and industry.

General Education Requirements (p. 396)		42
ENGL 1301 [shared] [WI (p. 396)]	Composition I	
ENGL 1302 [shared] [WI (p. 396)]	Composition II	
Sophomore English [shared]		
Choose two of the following:		
BIOL 1406 [shared]	Biology for Science Majors	
BIOL 1407 [shared]	Biology for Science Majors II	
CHEM 1407 [shared]	Fundamentals of Chemistry	

CHEM 1311 & CHEM 1111 [shared]	College Chemistry I (Lecture) and College Chemistry I (Laboratory)	
AGEC 2317 [shared]	Introductory Agricultural Economics	
AGRI 2304	Introductory Metals and Welding	3
or AGRI 2303	Agricultural Construction I	
or AGSD 3301	Advanced Agricultural Power Units	
AGSD 2306	Introduction to Mechanical Agriculture	3
HORT 1301	Horticulture	3
AGRI 1419	General Animal Science	4
AGSD 1110	Introduction to Agricultural Services & Development	1
AGSD 2307	SAE Development in Agricultural Education	3
AGSD 3101	Analysis of Agricultural Occupations	1
AGSD 3306	Lab Techniques in Agricultural Mechanics	3
AGSD 3307 [WI (p. 396)]	Premier Leadership in Agriculture	3
AGSD 4307	Program Methods	3
AGSD 4306	Agricultural Mechanical Services and Instruction	3
AGSD 4310	Leadership Development	3
AGSD 4320	Agriscience Course Building	3
AGSD 4350	Supervised Agricultural Experience Project Management	3
AGSD 4601	Clinical Teaching	6
EDUC 3321 [WI (p. 396)]	Foundations of Teaching: Middle and Secondary Classrooms	3
EDUC 4331	Instructional Strategies for Middle and Secondary Classrooms	3
EDSP 4361	Teaching Strategies for Adolescent Students with Learning Disabilities	3
READ 3351 [WI (p. 396)]	Content Area Literacy	3
PSYC 3303	Educational Psychology	3
ANSC 3301	Livestock Management	3
HORT 3370	Floriculture Operations and Management	3
or HORT 3300	Plant Propagation	
Select 12 credit hours from ACOM, AGEC, AGRI, AGSD, ANSC, ENTO, ENVS, FDSC, HORT, NUTR, RNRM, SOIL, VETE, WSES Electives. Except WSES 4407 or ANSC 1202 or ANSC 1320		12
Total Hours		**120**

Bachelor of Science in Agricultural Communication

The BS in Agricultural Communication provides the student with both agricultural and communication knowledge and skills for exciting careers in agricultural publications, radio, livestock organizations, commodity groups, and governmental agencies that provide communication and information.

General Education Requirements (p. 396)		42
AGRI 1307	Agronomy	3
or HORT 1301	Horticulture	
AGEC 2317 [shared]	Introductory Agricultural Economics	
ANSC 1319 [shared]	General Animal Science	
ANSC 1119 [shared]	General Animal Science Laboratory	
ENGL 1301 [shared] [WI (p. 396)]	Composition I	
ENGL 1302 [shared] [WI (p. 396)]	Composition II	
ACOM 1310	Introduction to Agricultural Communication	3
ACOM 2301	Digital Photography Techniques for Agriculture	3
ACOM 2307	Graphic Design and Layout for Agricultural Publications	3
ACOM 2309	Scientific Communications in Agriculture and Natural Resources	3
or COMM 2311	News Gathering & Writing	
ACOM 4350	Electronic Field Production for Agricultural Communications	3
ACOM 4684	Internship	6
ACOM 3314 [WI (p. 396)]	Writing and Editing for Agricultural Publications	3
ACOM 3321 [WI (p. 396)]	Communicating Agriculture to the Public	3
ACOM 3325	New Media in Agriculture and Natural Resources	3
or ACOM 4320	Advanced Issues in Agricultural Communication	
ACOM 4305	Publication Development in Agricultural Communication	3
or ACOM 4315	Campaigns and Events in Agriculture and Natural Resources	
AGSD 2306	Introduction to Mechanical Agriculture	3
or AGSD 3301	Advanced Agricultural Power Units	
or AGRI 2303	Agricultural Construction I	
or AGRI 2304	Introductory Metals and Welding	
AGSD 2311	Applied Agricultural Analysis	3
AGSD 4185	Seminar	1
AGSD 4310	Leadership Development	3
AGSD 4330	Agricultural Extension and Industry Methods	3
Advanced ACOM Electives		15
KINE 1200 Activity Course		2
Elective Hours from ACOM, AGEC, AGSD, AGRI, ANSC, ENVS, HORT, RNRM, SOIL, or WSES		3
General Elective from ACOM, ARTS, COMM, BUSI, ENGL, ENVS, MKTG, AGRI, AGSD, ANSC, HORT, RNRM, SOIL, or WSES		3

Advanced Elective from ACOM, ARTS, COMM, BUSI, ENGL, MKTG, AGEC, AGRI, AGSD, ANSC, ENVS, HORT, RNRM, SOIL, or WSES	6
Total Hours	**120**

Bachelor of Science in Agribusiness

The BS in Agribusiness offers the following concentrations:

- Agribusiness Management: Prepares students for entry-level positions such as the retail/wholesale sectors of agribusiness or the businesses and agencies supporting the agricultural industry.
- Agricultural Economics: Designed to prepare students for a career in the analytical or research sectors of production, marketing, or finance. Recommended for students preparing for graduate study.
- Personal and Small Business Financial Planning: To meet the needs and interests of students wishing a career as a financial planner.
- Dairy Business Management: Industry-designed for students who plan a career in the sector of dairy operations and supporting infrastructure including input suppliers and the processing and distribution of dairy products.

General Education Requirements (p. 396)		42
MATH 1314 [shared]	College Algebra	
Choose two of the following math courses:		6
MATH 1342	Elementary Statistical Methods	
MATH 2412	Precalculus Math	
MATH 1324	Math for Business & Social Sciences I (Finite Mathematics)	
or MATH 1325	Math for Business & Social Sciences II (Business Calculus)	
ECON 2301	Principles of Macroeconomics	3
ACCT 2301	Principles of Accounting I-Financial	3
ACCT 2302	Principles of Accounting II-Managerial	3
AGEC 1309	Microcomputer Applications in Agriculture	3
AGEC 2317 [shared]	Introductory Agricultural Economics	
AGSD 3302 [WI (p. 396)]	Agricultural Sales and Services	3
AGEC 3330	Agricultural Credit	3
AGEC 3312	Production Economics	3
AGEC 3314	The Agricultural Marketing System	3
AGEC 3317	Agricultural Statistics	3
AGEC 3333 [WI (p. 396)]	Agriculture Prices	3
AGEC 4301	Public Agricultural Food Programs	3
AGEC 4384	Internship	3
Total Hours		**84**

Agribusiness Management

Select one of the following:		3-4
ANSC 1319 & ANSC 1119	General Animal Science and General Animal Science Laboratory	
HORT 1301	Horticulture	
AGRI 1307	Agronomy	
AGEC 4302	International Trade and Agriculture	3
AGEC 4330	Agricultural Finance	3
AGEC 4333	Economics of Agribusiness Management	3
Advanced COBA/AGEC electives: AGEC, ACCT, ADMS, BCIS, ECON, FINC, BUSI, BLAW, MGMT, MKTG, REST		12
Advanced AGEC electives		8-9
General Elective		3
Total Hours		**36**

Agricultural Economics

Select one of the following:		3-4
ANSC 1319 & ANSC 1119	General Animal Science and General Animal Science Laboratory	
HORT 1301	Horticulture	
AGRI 1307	Agronomy	
AGEC 4302	International Trade and Agriculture	3
AGEC 4317	Applied Quantitative Methods	3
AGEC 4330	Agricultural Finance	3
AGEC 4333	Economics of Agribusiness Management	3
ECON 3301	Intermediate Macroeconomics	3
ECON 3302	Intermediate Microeconomics	3
Advanced COBA/AGEC electives: AGEC, ACCT, ADMS, BCIS, ECON, FINC, BUSI, BLAW, MGMT, MKTG, REST		3
Advanced AGEC Electives		11-12
Total Hours		**36**

Dairy Business Management

CHEM 1311 [shared]	College Chemistry I (Lecture)	
CHEM 1111 [shared]	College Chemistry I (Laboratory)	
CHEM 1312 [shared]	College Chemistry II (Lecture)	
CHEM 1112 [shared]	College Chemistry II (Laboratory)	
ANSC 1319	General Animal Science	3
ANSC 1119	General Animal Science Laboratory	1
ANSC 2450	Anatomy and Physiology of Domestic Animals	4
ANSC 3302	Sustainable Animal Agriculture	3
or ANSC 3304	Understanding the Behavior of Livestock	
ANSC 3408	Physiology of Reproduction	4
ANSC 3409	Feeds and Feeding	4
ANSC 3315	Animal Diseases and Parasites	3
ANSC 4302	Dairy Cattle Production	3
AGEC 4306	Commodity Futures Markets	3
AGEC 4330	Agricultural Finance	3
AGEC 4333	Economics of Agribusiness Management	3
ECON 3304	Environmental Economics	3
Total Hours		**37**

Personal and Small Business Financial Planning

Select one of the following:		3-4
ANSC 1319 & ANSC 1119	General Animal Science and General Animal Science Laboratory	
HORT 1301	Horticulture	
AGRI 1307	Agronomy	
AGEC 4333	Economics of Agribusiness Management	3
AGEC 3359	Personal & Family Financial Management I	3
AGEC 3360	Personal & Family Financial Management II	3
ACCT 4305	Federal Tax Accounting I	3
BLAW 4333	Business Law II	3
FINC 3301	Principles of Financial Management	3
FINC 4308	Principles of Insurance and Risk Management	3
Select One of the Following:		3
AGEC 4336	Estate Planning	
ACCT 4315	Taxation of Gifts and Estates	
Select One of the Following:		3
FINC 4310	Professional Financial Planning	
FINC 4304	Investments I	
Select One of the Following:		3
AGEC 4341	Financial Planning/Development Capstone	
FINC 4380	Financial Planning Capstone	
General Elective		2-3
Total Hours		**36**

Minors

Minor in Agricultural Communication

ACOM 2301	Digital Photography Techniques for Agriculture	3
ACOM 2307	Graphic Design and Layout for Agricultural Publications	3
ACOM 3314 [WI (p. 396)]	Writing and Editing for Agricultural Publications	3
ACOM Elective		3
Advanced ACOM Elective		6
Total Hours		**18**

Minor in Agricultural Mechanics

Select 6 courses from the following (6 hours must be advanced):		18
AGRI 2301	Agricultural Power Units	
AGRI 2303	Agricultural Construction I	
AGRI 2304	Introductory Metals and Welding	
AGSD 2306	Introduction to Mechanical Agriculture	
AGSD 2308	Western Metal Art and Craftsmanship	
AGSD 3301	Advanced Agricultural Power Units	
AGSD 3318	Land Surveying and Soil/Water Conservation Practices	
AGSD 3326	Precision Agricultural Equipment Management and Operation	
AGSD 3325	Agricultural Electrical Systems	

AGSD 3329	Farm Utilities
AGSD 3340	Agricultural Field Machinery
AGSD 4302	Processing and Storage of Agricultural Products
AGSD 4305	Agricultural Mechanical Services
or AGSD 4306	Agricultural Mechanical Services and Instruction
AGSD 4325	Agriculture Safety and Health
Total Hours	**18**

Professors

- Osei, Edward Dr.
- Tarpley, Rudy Dr.
- Yu, Mark Dr.

Associate professors

- Andrew, Chandra Dr.
- Haynes, J. Chris Dr.
- Poe, Brant Dr.

Assistant professors

- Lonie, Jean Dr.
- Pulley, Justin Dr.

Instructor

- Belew, Ryan Mr.
- Brown, Cord Mr.
- Cline, Bryce Mr.
- Damerau, Michelle Ms.
- Henson, Laura Ms.
- Jackson, Morgan Ms.

Agri Services and Development Courses

AGSD 1110. Introduction to Agricultural Services & Development. 1 Credit Hour (Lecture: 1 Hour, Lab: 0 Hours).
An introduction to the careers, opportunities, and skills needed within the agricultural services professions. Topics will include agricultural education, agricultural extension, agricultural industries, and general agriculture.

AGSD 2306. Introduction to Mechanical Agriculture. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Introduction to current and emerging topics and industry related to agricultural mechanization and the use of mechanical principals in agricultural settings. Includes safe facility practices, construction practices, electrical energy, precision agriculture, nanotechnology, theory of the fusion of metals, efficiency of internal combustion engines, and other mechanical technology-related subjects.

AGSD 2307. SAE Development in Agricultural Education. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will foster information assimilation, critical thinking and problem solving skills necessary to successfully manage a supervised agricultural experience (SAE) or any business that uses generally accepted accounting principles and business management knowledge and skills. Information, concepts and skills applied in this course will provide a foundational knowledge to be used in the implementation of recordkeeping practices in a supervised agricultural experience (SAE).

AGSD 2308. Western Metal Art and Craftsmanship. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
This course will present the history behind custom handcrafted western articles to include belt buckles, spurs, bits, signs, leather working and other related equipment in the manner necessary to develop an appreciation of the craftsmanship necessary while also produce western art products of their own. Primary focus will be placed upon CNC design and leather working. Other areas of emphasis will include metallurgy, soldering, brazing, working with various silvers, brass, copper and other nonferrous metals. Final polishing, etching, engraving and finishing will be addressed covering all the necessary elements for a beginning craftsman to produce an object of art.

AGSD 2311. Applied Agricultural Analysis. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Collection and computer analysis of data and records related to production agricultural enterprises. Problem-solving techniques related to the areas of animal science, agronomy, agricultural business, and agricultural mechanization are stressed.

AGSD 2330. History and Philosophy of the Cooperative Extension Service. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A survey of the Cooperative Extension Service, the philosophy of Cooperative Extension, and Extension's role within the Land-Grant system. History, organization, program areas, and guiding principles of Cooperative Extension are discussed in detail.

AGSD 3101. Analysis of Agricultural Occupations. 1 Credit Hour (Lecture: 1 Hour, Lab: 0 Hours).
A course to advance student understanding of professional occupations in agriculture and the professional and technical competencies required.

AGSD 3301. Advanced Agricultural Power Units. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Investigation of modern power systems on agricultural equipment, agricultural safety, internal combustion operation, preventative maintenance and general servicing of tractor systems, hydraulics, and powertrain operations. Prerequisite: Sophomore classification.

AGSD 3302. Agricultural Sales and Services. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
Application of successful selling. Principles and practices in providing farm and ranch operations with agricultural materials, supplies, equipment, and services. Seller aspects involved in the marketing of farm and ranch products by farm-related agribusinesses. Career opportunities and preparation in agricultural sales and services will be explored.

AGSD 3307. Premier Leadership in Agriculture. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
Study and application of leadership skills related to agricultural education in middle/secondary agricultural education programs.

AGSD 3318. Land Surveying and Soil/Water Conservation Practices. 3 Credit Hours (Lecture: 2 Hours, Lab: 3 Hours).
Surveying principles including leveling, total station, laser levels, and mapping as applied to agriculture. The utilization of GPS in the agricultural industry. Planning and development of structures for surface water and waste water management. Lab fee $10.

AGSD 3325. Agricultural Electrical Systems. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Elements of: electric current generation and transmission, agricultural applications of electric heating, lighting and power, wiring, motors, and power rates. Also includes National Electrical Code and maintenance of air conditioning and cooling systems. Lab fee $16.

AGSD 3326. Precision Agricultural Equipment Management and Operation. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
This course provides an overview of current precision agriculture technologies, mapping methods, equipment operation, equipment setup, and equipment troubleshooting. Students can expect to be engaged in equipment operation in a broad range of agricultural experiences that deal with current precision equipment and techniques.

AGSD 3329. Farm Utilities. 3 Credit Hours (Lecture: 2 Hours, Lab: 3 Hours).
Farm water supply, sewage disposal, heating and ventilating system, farm refrigeration and farmstead layouts. Lab fee $6.

AGSD 3330. 4-H and Youth Development. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An examination of 4-H and Youth Development programs within the Cooperative Extension Service. Volunteer management and guiding principles of the 4-H and Youth Development program will be discussed. Information, concepts and skills applied in this course will provide a foundational knowledge to be used in the implementation of developing and/or managing a 4-H and Youth Development program within the Cooperative Extension System.

AGSD 3340. Agricultural Field Machinery. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
Principles of construction, operation, adjustment, calibration, and repair of agricultural tillage, planting, cultivating, spraying, fertilizing, and harvesting machinery. Laboratory activities include set-up of new equipment, wear analysis and repair of used equipment, calibration of equipment, and field operations. Lab fee $12.

AGSD 3370. Preparing Teams for Career Development Events. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will provide the foundational knowledge necessary for agricultural education majors to properly train future students to compete in career development events (CDEs) in secondary agricultural education programs. The course will foster the knowledge, creativity, leadership skills, application, and competition skills necessary to successfully coach the numerous CDE contests. Prerequisite: Agricultural Education majors.

AGSD 3380. Formulation of Agriculture & Food Policy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of the past and present development of agriculture and food policy at the state and national levels. Topics include a history of the legislative process, current agricultural issues, and the place of agriculture in the American political system.

AGSD 4086. Problems in Agricultural Services. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 1-6 Hours).
Independent study in an area of specialization. May be repeated for a maximum of 6 hours credit when topics differ. Prerequisite: Approval of department head.

AGSD 4185. Seminar. 1 Credit Hour (Lecture: 1 Hour, Lab: 0 Hours).
A review of current problems and developments in agricultural services; professional opportunities and responsibilities; individual investigations and reports. Prerequisite: Senior classification.

AGSD 4302. Processing and Storage of Agricultural Products. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
The mechanical processes used in the processing and storage of grains, forages, nuts, and other agricultural products along with factors important to maintaining product quality during storage and processing. Lab fee $6.

AGSD 4305. Agricultural Mechanical Services. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Applications of advanced phases in agricultural mechanics. The course will emphasize the organization, management, service, and use of equipment in all areas of agricultural mechanics. Prerequisite: Senior classification Lab fee: $2.

AGSD 4306. Agricultural Mechanical Services and Instruction. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Field-based applications of agricultural mechanics instruction. This course will emphasize the organization, management, service, and use of equipment in all areas of agricultural mechanics instruction. Prerequisite: AGRI 2301 OR AGRI 2304 Lab fee: $2.

AGSD 4307. Program Methods. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of curriculum and programmatic management for all aspects of the secondary/middle school agricultural science and technology program. Topics include pre-employment laboratories, work-based learning, advisory committees, supervised agricultural experience programs, new program development/ implementation, foundations of agricultural education, program activism, and incorporating Agricultural Science and Technology into the total school curriculum.

AGSD 4310. Leadership Development. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Field-based experiences designed to develop leadership ability for teaching, entrepreneurship, and conducting adult and youth organizations. Includes systems of record keeping. Lab fee: $2.

AGSD 4320. Agriscience Course Building. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Field-based experiences are provided in a school setting where students will prepare and deliver units of instruction for middle school and secondary programs; develop unit and daily lesson plans, reports; manage curriculum issues; examine various models of instruction; implement brain-based teaching and learning techniques, analyze classroom management strategies, and demonstrate competencies in effective teaching practices. Prerequisite: EDUC 3321, EDUC 4331, EDSP 4361 and READ 3351 Lab fee $2.

AGSD 4325. Agriculture Safety and Health. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Protecting agricultural workers and the general public in our age of technological and scientific advancement has become one of the most challenging and rewarding career fields. This online agricultural safety and health class will prepare you to respond to these needs, to analyze hazardous agricultural and rural public health situations, to develop and implement safety programs, and apply governmental regulations associated with production agriculture.

AGSD 4326. National Agricultural Education Outreach Development. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An in-depth course designed to give students hands-on experience with developing a national agricultural education outreach program. Student will be required to travel to the National FFA Convention in the fall semester to deliver the program at the National FFA Convention. Students will need to submit an application for course enrollment. Prerequisite: Instructor approval.

AGSD 4330. Agricultural Extension and Industry Methods. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Agricultural extension in agriculture and the agriculture industry. Objectives include organization, methods, and program building. Prerequisite: Approval of department head.

AGSD 4350. Supervised Agricultural Experience Project Management. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Specialized feeding, training, and fitting livestock for utilization in the approved agricultural education supervised agricultural experience (SAE) program. Topics include identifying, selection, and evaluating all aspects of the livestock and stock-show industries. Students will also apply research methodology specific to appropriate topics. Credit will not be awarded for both AGSD 4350 and ACRS 5350. Prerequisites: Senior classification and AGRI 1419 Lab fee: $2.

AGSD 4355. Mexican Agricultural Relations. 3 Credit Hours (Lecture: 1 Hour, Lab: 6 Hours).
A study of international agricultural technology, educational methodology, and cultural activities related to Mexico. A required one-week trip at student's expense to Mexico will be one of the requirements necessary to meet the course objectives. Prerequisites: Junior or senior classification and approval of the instructor.

AGSD 4383. Internship in Classroom Teaching in Agricultural Services and Development. 3 Credit Hours (Lecture: 1 Hour, Lab: 9 Hours).
This internship includes supervised, field-based activities in public school classrooms. Major emphasis is placed on the development of instructional strategies and professional practices designed to improve teaching performance. Students are required to conduct a reflective analysis of their teaching performance. May be repeated for credit. Prerequisite: admission to the Teacher Education Program and approval of department head. Field experience fee $50.

AGSD 4390. Special Topics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Deals with selected topics in Agricultural Services and Development. May be repeated for credit when topics vary. Prerequisite: approval of department head.

AGSD 4601. Clinical Teaching. 6 Credit Hours (Lecture: 1 Hour, Lab: 16 Hours).
Twelve weeks or equivalent of off-campus supervised clinical teaching in an Agricultural Science and Technology Program in selected public schools in Texas. Prerequisite: Senior classification.

AGSD 4684. Internship. 6 Credit Hours (Lecture: 0 Hours, Lab: 12-16 Hours).
The student will complete an approved supervised work experience with an agricultural service organization or related industry. Prerequisites: Senior classification and advisor approval. Lab fee: $2.

Agricultural Communication Courses

ACOM 1110. Introduction to Agricultural Communication. 1 Credit Hour (Lecture: 1 Hour, Lab: 0 Hours).
Focuses on the fundamentals of agricultural news writing and other communication methods. Students will learn about the history and practice of agricultural communication, the role of the media in agriculture and related fields, and careers.

ACOM 1310. Introduction to Agricultural Communication. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Focuses on the fundamentals of agricultural news writing and other communication methods. Students will learn about the history and practice of agricultural communication, the role of the media in agriculture and related fields, and careers. Introduction to agricultural crisis communication, networking in the agricultural communications industry, and commonly used software tools in agricultural communications.

ACOM 2301. Digital Photography Techniques for Agriculture. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
This course focuses on the fundamentals of Digital Photography and image editing in an agricultural setting. Topics will include livestock, wildlife, event, and portrait photography as they relate to the field of agriculture.

ACOM 2307. Graphic Design and Layout for Agricultural Publications. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Fundamentals of layout and design as applied to agricultural publications, such as brochures, newsletters, magazine and advertising layouts, and social media. Practical application of design principles, typography, desktop-publishing software and printing practices.

ACOM 2309. Scientific Communications in Agriculture and Natural Resources. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Concepts of writing scientific information for various audiences about agriculture and natural resources. Course will introduce the fundamentals of issue identification, research skills, and storytelling of topics in agriculture and natural resources using print and digital formats. Development of expert and research sources, press releases, feature stories, and other written documents needed to share information about agriculture and natural resources. Prerequisites: ENGL 1301 and ENGL 1302 or instructor approval.

ACOM 3310. Podcasting for Audiences in Agriculture and Natural Resources. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Development and production of a podcast for audiences interested in agriculture and natural resources. Includes storytelling, topic identification, sound gathering using sound gear in a studio or in the field, interviewing, script writing, audio editing, and developing their “voice” as students create an informative podcast episode regarding a topic in agriculture and natural resources.

ACOM 3314. Writing and Editing for Agricultural Publications. 3 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour). [WI (p. 396)]
Writing and editing in agricultural industries and publications. Writing agricultural articles, tightening copy, editing, copy reading, writing headlines, writing photo captions.

ACOM 3321. Communicating Agriculture to the Public. 3 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours). [WI (p. 396)]
This course is an application of public relations writing and skills in an agricultural context. Agricultural organizations can be government-related, for-profit business, or not-for-profit commodity groups. Whatever the organization classification, they must communicate internally, among each other, and to a larger audience. This course will equip you with an understanding of public relations and help develop necessary skills to be successful communicators for the industry.

ACOM 3325. New Media in Agriculture and Natural Resources. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course focuses on the fundamentals of using digital online media for agriculture and natural resources–including but not limited to: social media, customer relationship management software, digital asset management software and email marketing. Practical application of theory and skills related to design, management and evaluation of digital and online media.

ACOM 3330. Website Design in Agricultural Communication. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course promotes a basic understanding of Web design principles and experiential learning through a project requiring students to develop a website for a client in the agriculture and natural resources industries.

ACOM 4086. Problems in Agricultural Communications. 1-4 Credit Hours (Lecture: 1-4 Hours, Lab: 0 Hours).
Individualized study of current topics in student's major concentration of study or supporting discipline. Specific content and credit dependent upon students' interest, needs, and depth of study. Maximum undergraduate credit, four semester hours. Prerequisite: Senior classification and advanced approval by academic advisor.

ACOM 4300. Career Readiness for Agricultural Leadership. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides the focused development and hands-on application of soft skills needed to become a leader in agricultural and natural resources industries, which include government-related, for-profit business, or not-for-profit commodity groups. Discussion of leadership theory as well as targeting the improvement of interpersonal skills, professionalism, emotional intelligence and its importance in agricultural industries, and understanding biases and the role they play within agriculture, its niche groups, and audiences outside of agriculture and natural resources. Prerequisite: AGRI 1419.

ACOM 4305. Publication Development in Agricultural Communication. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides directed experience in the development of a commercial agriculture and publication. Students will master public relations writing style, interviewing and photography skills, and sponsorship sales techniques in an agricultural context. Students will produce magazine stories and layouts using Livestock Publications Council guidelines as well as Associated Press Style Guides. Students will gain experience in interviewing and photographing subjects through this course. It is hoped students will become more comfortable with and gain an appreciation for news writing in an agricultural context. Prerequisite: ACOM 2307 and ACOM 3314.

ACOM 4315. Campaigns and Events in Agriculture and Natural Resources. 3 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
Provides directed experience in the development of communication campaigns, promotional activities, and hosting of agricultural and environmental events, including risk assessment and management. Includes the development of planning, materials, budget, insurance, and venue contracts after completion of agricultural facility analyses to troubleshoot and resolve obstacles. Prerequisite: AGRI 1419.

ACOM 4320. Advanced Technology in Agricultural Communication. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A survey of various topics, trends, technologies, and best practices in the field of Agricultural Communication. Students will work both independently and in teams to apply critical thinking and creative problem solving skills to address real-world challenges.

ACOM 4325. Agricultural Media Convergence. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Practical application of theory and skills related to the design, planning, management, and delivery of agricultural events through digital and online media.

ACOM 4341. Agricultural Communication Study Away. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Agriculture and natural resources study away with exposure to a wide array of agricultural production operations and crops, professional networking opportunities, and real-world exposure to changes occurring in the industry by attending a professional conference dedicated to agricultural and natural resources communication. Prerequisite: Instructor approval.

ACOM 4342. Study Abroad in Agricultural Communications. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Agricultural and natural resources travel course emphasizing photography, advanced composition techniques, global issues and production practices, and exposure to cultural and agricultural sites from a photographic perspective. Locations will include livestock, wildlife, event, and portrait photography as they relate to the field of agriculture and natural resources. Prerequisite: Junior or Senior classification or instructor approval.

ACOM 4350. Electronic Field Production for Agricultural Communications. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
This course provides directed experience in agricultural television field production and electronic news gathering. Students will master video production skills such as script writing, storyboarding, camera operation, and video editing in an agricultural setting.

ACOM 4390. Special Topics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Selected topics in Agricultural Communication. May be repeated for credit when topics vary.

ACOM 4684. Internship. 6 Credit Hours (Lecture: 0 Hours, Lab: 16 Hours).
Pre-approved and supervised work experience in an administrative systems-related position with a public or private business organization. Prerequisites: Junior classification and approval of department head. Field experience fee $50.

Agricultural Economics Courses

AGEC 1309. Microcomputer Applications in Agriculture. 3 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
Microcomputer technology applied to management, record keeping, and agribusiness. Emphasis on the application of database, spreadsheet, and other business software in various agricultural environments. Lab fee: $2.

AGEC 2305. Consumer Issues & Decision Making. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Designed to make the student an intelligent consumer of goods and services and to understand consumer decision#making in the marketplace. Major influences on consumer problems, fraud, protection, and consumer behavior.

AGEC 2317. Introductory Agricultural Economics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introduction to economics principles and concepts in agriculture today as they relate to the American economic system. Emphasis will be on management problem-solving techniques under various situations, especially those agricultural in nature,including producing, processing, distributing, and consuming farm and ranch products.

AGEC 3312. Production Economics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Application of economic production principles in solving resource allocation problems in agriculture and agribusiness. Prerequisites: MATH 1324 or MATH 1325, and either AGRI/AGEC 2317 OR ECON 2302, or permission of instructor.

AGEC 3314. The Agricultural Marketing System. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introductory course covering the principles, practices, institutions, functions, and problems involved in the marketing of agricultural commodities. Prerequisite: AGRI 2317/AGEC 2317 or ECON 2302.

AGEC 3317. Agricultural Statistics. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Statistical principles and methods in analyzing agricultural and economic data to solve problems relating to production, consumption, and cost/profit optimization. Provides a basic background in statistical analysis and related computer applications. Prerequisite: MATH 1314 or higher, or approval of instructor. Lab fee: $2.

AGEC 3330. Agricultural Credit. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Emphasis will be on building Balance Sheets, Income/Expenses Statements, Collateral Analysis, Credit Action Forms and Financial Analysis. Prerequisites: AGRI 2317/AGEC 2317 and MATH 1314 or higher, or approval of instructor.

AGEC 3333. Agriculture Prices. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
Factors affecting commodity prices, price trends and seasonal variations, parity prices, methods of forecasting demand and prices, and economic tools and techniques for making decisions. Prerequisites: AGRI 2317/AGEC 2317, AGRI 1309/AGEC 1309, and AGEC 3314. Lab fee $15.

AGEC 3359. Personal & Family Financial Management I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Planning, managing, and purchasing decisions to achieve individual and family financial goals.

AGEC 3360. Personal & Family Financial Management II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Individual and family planning for insurance, risk management, investments, retirement, and estates.

AGEC 4086. Agricultural Economics Problems. 1-4 Credit Hours (Lecture: 0 Hours, Lab: 1-4 Hours).
Individualized study of current topics in student's major concentration of study or supporting discipline. Specific content and credit dependent upon student's interest, needs, and depth of study. Maximum undergraduate credit, four semester hours. Prerequisite: Senior classification and advance approval by instructor of record.

AGEC 4088. Undergraduate Research. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 1-3 Hours).
Fundamental research methods will be addressed through a faculty-directed project. Participation in an abbreviated lecture series may be required. Project components may include a literature review, data collection and analysis, testing, planning, project design, and/or computer modeling. The student is required to prepare a final report and produce a presentation. No credit is awarded until the the report and presentation are submitted. Only one undergraduate research experience will be counted toward degree requirements. Prerequisite: Junior Standing, completion of 12 hours in AGEC, and approval of department head.

AGEC 4090. Special Topics. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 0 Hours).
Selected topics in agriculture or agribusiness. May be repeated for credit when content varies, to a maximum of six hours.

AGEC 4301. Public Agricultural Food Programs. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Identification and analysis of alternative governmental programs and policies affecting prices and quantities of agricultural commodities, farmer-rancher incomes, food supplies and consumer prices, and domestic and foreign food distribution and trade. Consideration of relevant political and economic factors, administrative aspects, and the policy participants. Prerequisites: AGRI 2317/AGEC 2317 or two semesters of economics and junior classification.

AGEC 4302. International Trade and Agriculture. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Role of U.S. agriculture in a dynamic world economy; national and international policies, institutions, exchange rates, tariffs, and non-tariff barriers that impact US agribusiness trade. Prerequisites: AGEC 2317 or 3 hours of economics and junior or senior classification. Prerequisite: AGEC 2317 or 3 hours of economics and junior or senior classification.

AGEC 4306. Commodity Futures Markets. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduction to the organization and functioning of futures markets. Analysis of the economic function performed by markets, and study of fundamental and technical approaches to market forecasting. Examination of various trading strategies applied primarily to agricultural commodities. Prerequisites: AGRI 2317/ AGEC 2317 or ECON 2302; AGRI 1309/AGEC 1309 and AGEC 3314.

AGEC 4317. Applied Quantitative Methods. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Application of quantitative techniques used to support managerial decision-making and resource allocation. Exposure to mathematical and statistical tools (regression analysis, mathematical programming, simulation) used in economic analysis in Agribusiness. Credit for AGEC 4317 or AGEC 5317 not both. Prerequisite: AGEC 3317.

AGEC 4321. Regional Economics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
Analysis of regional/community economic problems in the United States. Application of economic principles and theory to regional/community development. Evaluation of current methods and public programs for economic development. Application of analytical methods to development problems. Credit for both AGEC 4321 and ECON 4321 will not be awarded. Prerequisite: AGEC 2317/AGRI 2317 or ECON 2302.

AGEC 4325. Recreation and Tourism Economics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Benefit-cost frameworks in public planning for outdoor recreation development, pricing problems, market demand assessment, and impacts of recreational development on regional economies. Prerequisites: ECON 2301, and either AGEC/AGRI 2317 or ECON 2302.

AGEC 4330. Agricultural Finance. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Analysis of the capital requirements for farming and ranching; principles involved in the use of each type of farm credit. Prerequisites: AGEC 3330 and ACCT 2302.

AGEC 4333. Economics of Agribusiness Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Economic aspects of the agribusiness system. Management techniques related to problem recognition and decision making in organizations involved in the agricultural sector. Prerequisites: AGEC 2317/AGRI 2317 or ECON 2302 and AGEC 3314.

AGEC 4335. Farm Appraisal. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Techniques for evaluating the market value of agricultural real estate using three common approaches: sales comparison, cost, and income. Analyzing effects of different farm characteristics on farm value. Prerequisite: AGEC 3330 or AGEC 4330.

AGEC 4336. Estate Planning. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Tools and techniques to plan for the accumulation, conservation, and distribution of wealth. Synthesis of financial, legal, and personal considerations to achieve estate planning and wealth transfer goals. Students are encouraged to have completed ACCT 4305, AGEC 3359, AGEC 3360, BLAW 4333.

AGEC 4341. Financial Planning/Development Capstone. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Retirement planning, qualified and non-qualified retirement plans, Social Security provisions, government and private sector healthcare plans, and basics of employee benefits. Focus on quantitative (i.e., calculating retirement needs and plan limits) and qualitative (i.e., retirement age decisions, retirement income management) aspects of retirement. Prerequisite: Students must have completed one of the following courses: ACCT 4305, AGEC 3359, AGEC 3360, FINC 3301, FINC 4308.

AGEC 4350. Natural Resource Economics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Natural resource availability, use, conservation, and government policy relevant to crop and livestock production. Current and emerging natural resource issues affecting production agriculture and agribusiness firms. Evaluation of the farm economic impacts of natural resource policies at the state and federal levels. Prerequisites: AGEC 2317 or ECON 2302 and Junior or Senior classification.

AGEC 4370. Family and Economic Issues. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Focus is the intricate relationship between family management, the economic environment, non-economic and social changes and related planning and decisions in the family life cycle. Prerequisite: AGEC 3359 or AGEC 3360.

AGEC 4384. Internship. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An approved, supervised, comprehensive work experience consisting of a minimum of 240 hours(6 weeks) for career preparation in an agribusiness enterprise. Prerequisite: Completion of 24 hours in AGEC and instructor approval.

Division of Agribusiness and Agricultural Economics

Division of Agribusiness and Agricultural Economics
Joe W. Autry Agriculture Building, Room 105
Box T-0040
Stephenville, Texas 76402
254-968-9200
tarpley@tarleton.edu

At Tarleton, our Bachelor of Science in Agribusiness program combines core technical agriculture classes and contemporary agricultural economics classes with business courses that provide a solid foundation for successful careers in agriculture and business management.

With a focus on the business of food and agricultural production, marketing and sales, the undergraduate agribusiness program coursework is relevant and responsive to changing needs in the agricultural industry. Students will learn real-world job skills, such as how to enhance the profitability of an agribusiness and techniques for success in personal and corporate sales.

The division offers concentrations in:

- Agribusiness Management
- Agricultural Economics
- Personal/Small Business Financial Planning
- Dairy Business Management

Agribusiness majors can also choose from a wide variety of disciplines for their minor, such as business, computer science, animal science or economics. Students majoring in other disciplines can minor in agribusiness or agricultural economics. Our agribusiness bachelor's degree has a variety of options to help you reach specific career goals and interests.

The Bachelor of Science Degree in Agribusiness

A combination of agriculture and business, agribusiness involves economic and commercial activities of farming-related products and services, such as machinery, seed supply, crops, breeding, ranching, processing, distribution, marketing and retail sales. The agricultural business field includes management of key resources — land, labor, capital, farming, ranching, conservation and sales — and all the required logistics, often using advanced technology.

In the United States, the economic impact of the food and fiber sector totals over $100 billion annually. Texas leads the nation in cattle, cotton, hay, sheep, goats, and mohair, as well as the number of farms and ranches, with nearly 250,000 farms and ranches covering about 130 million acres. One out of seven working Texans is in an agriculture-related job. With a diverse and rapidly changing population, the region continues to rely on agricultural production and marketing, while related recreational land use and industrial development increasingly contribute to the economy.

General Education Requirements (p. 396)		42
MATH 1314 [shared]	College Algebra	
Choose two of the following math courses:		6
MATH 1342	Elementary Statistical Methods	
MATH 2412	Precalculus Math	
MATH 1324	Math for Business & Social Sciences I (Finite Mathematics)	
or MATH 1325	Math for Business & Social Sciences II (Business Calculus)	
ECON 2301	Principles of Macroeconomics	3
ACCT 2301	Principles of Accounting I-Financial	3
ACCT 2302	Principles of Accounting II-Managerial	3
AGEC 1309	Microcomputer Applications in Agriculture	3
AGEC 2317 [shared]	Introductory Agricultural Economics	
AGSD 3302 [WI (p. 396)]	Agricultural Sales and Services	3
AGEC 3330	Agricultural Credit	3

AGEC 3312	Production Economics	3
AGEC 3314	The Agricultural Marketing System	3
AGEC 3317	Agricultural Statistics	3
AGEC 3333 [WI (p. 396)]	Agriculture Prices	3
AGEC 4301	Public Agricultural Food Programs	3
AGEC 4384	Internship	3
Total Hours		**84**

Agribusiness Management

Select one of the following:		3-4
ANSC 1319 & ANSC 1119	General Animal Science and General Animal Science Laboratory	
HORT 1301	Horticulture	
AGRI 1307	Agronomy	
AGEC 4302	International Trade and Agriculture	3
AGEC 4330	Agricultural Finance	3
AGEC 4333	Economics of Agribusiness Management	3
Advanced COBA/AGEC electives: AGEC, ACCT, ADMS, BCIS, ECON, FINC, BUSI, BLAW, MGMT, MKTG, REST		12
Advanced AGEC electives		8-9
General Elective		3
Total Hours		**36**

Agricultural Economics

Select one of the following:		3-4
ANSC 1319 & ANSC 1119	General Animal Science and General Animal Science Laboratory	
HORT 1301	Horticulture	
AGRI 1307	Agronomy	
AGEC 4302	International Trade and Agriculture	3
AGEC 4317	Applied Quantitative Methods	3
AGEC 4330	Agricultural Finance	3
AGEC 4333	Economics of Agribusiness Management	3
ECON 3301	Intermediate Macroeconomics	3
ECON 3302	Intermediate Microeconomics	3
Advanced COBA/AGEC electives: AGEC, ACCT, ADMS, BCIS, ECON, FINC, BUSI, BLAW, MGMT, MKTG, REST		3
Advanced AGEC Electives		11-12
Total Hours		**36**

Dairy Business Management

CHEM 1311 [shared]	College Chemistry I (Lecture)	
CHEM 1111 [shared]	College Chemistry I (Laboratory)	
CHEM 1312 [shared]	College Chemistry II (Lecture)	
CHEM 1112 [shared]	College Chemistry II (Laboratory)	
ANSC 1319	General Animal Science	3
ANSC 1119	General Animal Science Laboratory	1
ANSC 2450	Anatomy and Physiology of Domestic Animals	4
ANSC 3302	Sustainable Animal Agriculture	3
or ANSC 3304	Understanding the Behavior of Livestock	
ANSC 3408	Physiology of Reproduction	4
ANSC 3409	Feeds and Feeding	4
ANSC 3315	Animal Diseases and Parasites	3
ANSC 4302	Dairy Cattle Production	3
AGEC 4306	Commodity Futures Markets	3
AGEC 4330	Agricultural Finance	3
AGEC 4333	Economics of Agribusiness Management	3
ECON 3304	Environmental Economics	3
Total Hours		**37**

Personal and Small Business Financial Planning

Select one of the following:		3-4
ANSC 1319 & ANSC 1119	General Animal Science and General Animal Science Laboratory	
HORT 1301	Horticulture	
AGRI 1307	Agronomy	
AGEC 4333	Economics of Agribusiness Management	3
AGEC 3359	Personal & Family Financial Management I	3

AGEC 3360	Personal & Family Financial Management II	3
ACCT 4305	Federal Tax Accounting I	3
BLAW 4333	Business Law II	3
FINC 3301	Principles of Financial Management	3
FINC 4308	Principles of Insurance and Risk Management	3
Select One of the Following:		3
AGEC 4336	Estate Planning	
ACCT 4315	Taxation of Gifts and Estates	
Select One of the Following:		3
FINC 4310	Professional Financial Planning	
FINC 4304	Investments I	
Select One of the Following:		3
AGEC 4341	Financial Planning/Development Capstone	
FINC 4380	Financial Planning Capstone	
General Elective		2-3
Total Hours		**36**

Courses

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An introductory course covering the principles, practices, institutions, functions, and problems involved in the marketing of agricultural commodities. Prerequisite: AGRI 2317/AGEC 2317 or ECON 2302.

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Fundamental research methods will be addressed through a faculty-directed project. Participation in an abbreviated lecture series may be required. Project components may include a literature review, data collection and analysis, testing, planning, project design, and/or computer modeling. The student is required to prepare a final report and produce a presentation. No credit is awarded until the the report and presentation are submitted. Only one undergraduate research experience will be counted toward degree requirements. Prerequisite: Junior Standing, completion of 12 hours in AGEC, and approval of department head.

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Selected topics in agriculture or agribusiness. May be repeated for credit when content varies, to a maximum of six hours.

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Identification and analysis of alternative governmental programs and policies affecting prices and quantities of agricultural commodities, farmer-rancher incomes, food supplies and consumer prices, and domestic and foreign food distribution and trade. Consideration of relevant political and economic factors, administrative aspects, and the policy participants. Prerequisites: AGRI 2317/AGEC 2317 or two semesters of economics and junior classification.

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Role of U.S. agriculture in a dynamic world economy; national and international policies, institutions, exchange rates, tariffs, and non-tariff barriers that impact US agribusiness trade. Prerequisites: AGEC 2317 or 3 hours of economics and junior or senior classification. Prerequisite: AGEC 2317 or 3 hours of economics and junior or senior classification.

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Introduction to the organization and functioning of futures markets. Analysis of the economic function performed by markets, and study of fundamental and technical approaches to market forecasting. Examination of various trading strategies applied primarily to agricultural commodities. Prerequisites: AGRI 2317/ AGEC 2317 or ECON 2302; AGRI 1309/AGEC 1309 and AGEC 3314.

AGEC 4317. Applied Quantitative Methods. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Application of quantitative techniques used to support managerial decision-making and resource allocation. Exposure to mathematical and statistical tools (regression analysis, mathematical programming, simulation) used in economic analysis in Agribusiness. Credit for AGEC 4317 or AGEC 5317 not both. Prerequisite: AGEC 3317.

AGEC 4321. Regional Economics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
Analysis of regional/community economic problems in the United States. Application of economic principles and theory to regional/community development. Evaluation of current methods and public programs for economic development. Application of analytical methods to development problems. Credit for both AGEC 4321 and ECON 4321 will not be awarded. Prerequisite: AGEC 2317/AGRI 2317 or ECON 2302.

AGEC 4325. Recreation and Tourism Economics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Benefit-cost frameworks in public planning for outdoor recreation development, pricing problems, market demand assessment, and impacts of recreational development on regional economies. Prerequisites: ECON 2301, and either AGEC/AGRI 2317 or ECON 2302.

AGEC 4330. Agricultural Finance. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Analysis of the capital requirements for farming and ranching; principles involved in the use of each type of farm credit. Prerequisites: AGEC 3330 and ACCT 2302.

AGEC 4333. Economics of Agribusiness Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Economic aspects of the agribusiness system. Management techniques related to problem recognition and decision making in organizations involved in the agricultural sector. Prerequisites: AGEC 2317/AGRI 2317 or ECON 2302 and AGEC 3314.

AGEC 4335. Farm Appraisal. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Techniques for evaluating the market value of agricultural real estate using three common approaches: sales comparison, cost, and income. Analyzing effects of different farm characteristics on farm value. Prerequisite: AGEC 3330 or AGEC 4330.

AGEC 4336. Estate Planning. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Tools and techniques to plan for the accumulation, conservation, and distribution of wealth. Synthesis of financial, legal, and personal considerations to achieve estate planning and wealth transfer goals. Students are encouraged to have completed ACCT 4305, AGEC 3359, AGEC 3360, BLAW 4333.

AGEC 4341. Financial Planning/Development Capstone. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Retirement planning, qualified and non-qualified retirement plans, Social Security provisions, government and private sector healthcare plans, and basics of employee benefits. Focus on quantitative (i.e., calculating retirement needs and plan limits) and qualitative (i.e., retirement age decisions, retirement income management) aspects of retirement. Prerequisite: Students must have completed one of the following courses: ACCT 4305, AGEC 3359, AGEC 3360, FINC 3301, FINC 4308.

AGEC 4350. Natural Resource Economics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Natural resource availability, use, conservation, and government policy relevant to crop and livestock production. Current and emerging natural resource issues affecting production agriculture and agribusiness firms. Evaluation of the farm economic impacts of natural resource policies at the state and federal levels. Prerequisites: AGEC 2317 or ECON 2302 and Junior or Senior classification.

AGEC 4370. Family and Economic Issues. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Focus is the intricate relationship between family management, the economic environment, non-economic and social changes and related planning and decisions in the family life cycle. Prerequisite: AGEC 3359 or AGEC 3360.

AGEC 4384. Internship. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An approved, supervised, comprehensive work experience consisting of a minimum of 240 hours(6 weeks) for career preparation in an agribusiness enterprise. Prerequisite: Completion of 24 hours in AGEC and instructor approval.

Department of Animal Science

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Students seeking knowledge in the production, management and care of livestock and companion animals will find interest in the department's offerings. Included are Animal Science concentrations in Science, Production, Equine, Business, Meat and Food Science; Range and Ranch Management; and Pre-Veterinary Medicine. All concentrations have a strong emphasis on classroom knowledge and hands-on application. Courses are sequenced in a way to allow a "learning ladder": each course provides a base for the next. Internships are a part of most concentrations and provides an opportunity for students to apply what they learned in class to real-world situations.

Bachelor of Science in Animal Science

The Department of Animal Science administers one Bachelor of Science degree with the following support areas:

Science: Provides a strong foundation in the scientific aspects of animal production, nutrition, reproduction, anatomy, and physiology. Supporting course work in chemistry, biology, and math provides students with background necessary for understanding the complex physiology and biology of animal function and performance.

Animal Production: Stresses the practical aspects of commercial livestock production. Designed for students who expect and desire a career in the commercial production, marketing, and/or promotion phases of the livestock industry.

Equine Science: Provides a strong foundation in scientific aspects of horse management and production with emphasis in behavior, nutrition, reproduction, exercise physiology and welfare; additional coursework in business management and production economics to prepare students for careers in a diverse equine industry.

Business: Combination of a strong foundation in animal science and basic business courses needed by graduates entering commercial and business enterprises related to animal agriculture.

Pre-Veterinary Medicine: Includes all necessary prerequisites for application to the Doctor of Veterinary Medicine (DVM) program at Texas A&M University and other professional veterinary medicine schools. Acceptance into a DVM program is competitive. Students are encouraged to work closely with their academic advisor in planning their program of study.

Meat and Food Science: Applications of science, business and animal production to food production, processing and safety. The course work will prepare students for careers in meat science, meat and food processing, and food safety.

Range and Ranch Management: Similar to the Animal Production concentration but provides students an additional emphasis in livestock production in the range conditions of the western U.S. This concentration contains the courses required for the Federal Government's GS-454 "Range Management Specialist" position.

GENERAL EDUCATION REQUIREMENTS (p. 396) [1]		**42**
COMM 1315 [shared]	Public Speaking	
MATH 1314 [shared]	College Algebra	
BIOL 1406 [shared]	Biology for Science Majors	
AGEC 2317 [shared]	Introductory Agricultural Economics	
ANSC 2101	Animal Science Industry	1
ANSC 1319	General Animal Science	3
ANSC 1119	General Animal Science Laboratory	1
ANSC 2450	Anatomy and Physiology of Domestic Animals	4
ANSC 3308	Principles of Animal Nutrition	3
Choose One Animal Nutrition Course from the Following:		3
ANSC 3309	Applied Animal Nutrition and Feeding	
ANSC 3314	Applied Equine Nutrition	
VTSC 4323	Companion Animal Nutrition & Care	
ANSC 3408	Physiology of Reproduction	4
ANSC 3421	Meat Science	4
ANSC 4300 [WI (p. 396)]	Research and Writing in Animal Science	3
Choose One Writing Intensive Course from the Following:		3
AGSD 3302 [WI (p. 396)]	Agricultural Sales and Services	
ACOM 3314 [WI (p. 396)]	Writing and Editing for Agricultural Publications	
ACOM 3321 [WI (p. 396)]	Communicating Agriculture to the Public	
ENGL 3309 [WI (p. 396)]	Professional Writing	
ANSC 4319 [WI (p. 396)]	Biotechnology in Agriculture	
AGRI 3409	Genetics	4
ANSC 3319	Animal Breeding	3
ANSC 4185	Senior Seminar	1
Choose Two Animal Production Electives from the Following:		6
ANSC 4302	Dairy Cattle Production	
ANSC 4303	Beef Cattle Production	
ANSC 4310	Swine Production	
ANSC 4313	Sheep and Goat Production	
ANSC 4320	Stocker Cattle Production and Feedlot Management	
ANSC 4330	Horse Enterprise Management	
ANSC 4335	Companion Animal Management	
Total Hours		**85**

[1] All Animal Science majors must complete the General Education requirements and one of the concentrations below to complete their degree program.

Animal Production Concentration

CHEM 1407 [shared]	Fundamentals of Chemistry	
AGRI 1307 & AGRI 1107	Agronomy and Agronomy Laboratory	4
RNRM 3301	Principles of Range Management	3
or ANSC 3303	Pastures and Forages	
ANSC 4084	Internship	3
Advanced Electives in AGEC, ACCT, BCIS, BLAW, BUSI, ECON, FINC, REST, MGMT, MKTG		6
Choose one of the following:		3
ANSC 3315	Animal Diseases and Parasites	
VTSC 4321	Companion Animal Diseases and Health Management	
VTSC 4331	Equine Diseases and Health Management	
Choose two of the following courses:		6
ANSC 3302	Sustainable Animal Agriculture	
ANSC 3304	Understanding the Behavior of Livestock	
ANSC 3323	Ethical Issues in Agriculture and the Natural Resources	
ANSC 4319 [WI (p. 396)]	Biotechnology in Agriculture	
ANSC 4351	Environmental Stewardship in Animal Agriculture	
Animal Science Electives from ANSC, RNRM, or VTSC		10
Total Hours		**35**

Business Concentration

CHEM 1407 [shared]	Fundamentals of Chemistry	
ECON 2301	Principles of Macroeconomics	3
ACCT 2301	Principles of Accounting I-Financial	3
ACCT 2302	Principles of Accounting II-Managerial	3
or AGSD 2311	Applied Agricultural Analysis	
AGEC 3330	Agricultural Credit	3
AGEC 3314	The Agricultural Marketing System	3
AGEC 3317	Agricultural Statistics	3
ANSC 4084	Internship	3
Advanced Electives in AGEC, ACCT, BCIS, BLAW, BUSI, ECON, FINC, REST, MGMT, MKTG		8
Animal Science Electives from ANSC, RNRM, or VTSC		6
Total Hours		**35**

Equine Science

CHEM 1407	Fundamentals of Chemistry	4
ANSC 1309	Introduction to Horse Production	3
ANSC 3101	Issues in the Equine Industry	1
ANSC 3305	Equine Evaluation	3
ANSC 3310	Equine Reproduction	3
ANSC 4084	Internship	3
VTSC 4331	Equine Diseases and Health Management	3
Advance Electives in AGEC, BUSI, MGMT, MKTG or ANSC 3320		6
Choose 9 hours from the following:		9
ANSC 2305	Horse Handling Techniques	
ANSC 3325	Equine Exercise Physiology and Conditioning	
ANSC 3340	Basic Therapeutic Riding	
ANSC 3341	Advanced Therapeutic Riding	
ANSC 4086	Animal Science Problems	
ANSC 4090	Special Topics in Animal Science	
ANSC 4301	Equine Breeding Management	
ANSC 4308	Environmental Physiology of Farm Animals	
ANSC 4325	Equine Sales Prep and Marketing	
Total Hours		**35**

Meat and Food Science

BIOL 1407	Biology for Science Majors II	4
CHEM 1311 [shared]	College Chemistry I (Lecture)	
CHEM 1111 [shared]	College Chemistry I (Laboratory)	
CHEM 1312	College Chemistry II (Lecture)	3
CHEM 1112	College Chemistry II (Laboratory)	1
BIOL 3407	Microbiology	4
CHEM 2323	Organic Chemistry I	3
CHEM 2123	Organic Chemistry I Laboratory	1
ANSC 4312	Meat Processing and Merchandising	3
ANSC 4338	Value-Added Processed Meats	3
ANSC 4084	Internship	3
Choose from the Following Electives		**10**
ANSC 1202	Barbeque Science	
ANSC 2308	Introduction to Meat and Carcass Evaluation	
ANSC 3323	Ethical Issues in Agriculture and the Natural Resources	
ANSC 4314	Food Quality Assurance	
FDSC 1307	Concepts and Controversies in Food Studies	
FDSC 3304	Food Processing	
BUSI 4389	Global Business Practices	
MKTG 3312	Marketing	
MKTG 3316	Consumer Behavior	
MKTG 4312	Sales Management	
MKTG 4314	Supply Chain and Logistics Concepts	
FDSC 1316	Principles of Food Preparation	
AGSD 3380	Formulation of Agriculture & Food Policy	
Total Hours		**35**

Pre-Veterinary Medicine Concentration

BIOL 1407	Biology for Science Majors II	4
BIOL 3407	Microbiology	4
CHEM 1311 [shared]	College Chemistry I (Lecture)	
CHEM 1111 [shared]	College Chemistry I (Laboratory)	
CHEM 1312	College Chemistry II (Lecture)	3
CHEM 1112	College Chemistry II (Laboratory)	1
CHEM 2323	Organic Chemistry I	3
CHEM 2123	Organic Chemistry I Laboratory	1
CHEM 2325	Organic Chemistry II	3
CHEM 2125	Organic Chemistry II Laboratory	1
BIOL 4374	Biochemistry I	3
or CHEM 4374	Biochemistry I	
PHYS 1401	College Physics I	4
MATH 3450	Principles of Bio-Statistics	4
MATH 2412	Precalculus Math	4
Total Hours		**35**

Range and Ranch Management

CHEM 1407 [shared]	Fundamentals of Chemistry	
AGRI 1307	Agronomy	3
AGRI 1107	Agronomy Laboratory	1
RNRM 2301	Introduction to Range Science	3
RNRM 3300	Rangeland and Forest Plants	3
RNRM 3301	Principles of Range Management	3
RNRM 3315	Range Ecology	3
RNRM 4301	Perspectives and Practices in Grazing Management	3
RNRM 4312	Range Improvement and Development	3
SOIL 3301	Soil Science	3
SOIL 3302	Soils, Land Use, and The Environment	3
BIOL 3436	Plant Physiology	4
RNRM 4384	Internship	3
Total Hours		**35**

Science Concentration

BIOL 1407	Biology for Science Majors II	4
CHEM 1311 [shared]	College Chemistry I (Lecture)	
CHEM 1111 [shared]	College Chemistry I (Laboratory)	
CHEM 1312	College Chemistry II (Lecture)	3
CHEM 1112	College Chemistry II (Laboratory)	1
CHEM 2323	Organic Chemistry I	3
CHEM 2123	Organic Chemistry I Laboratory	1
BIOL 3407	Microbiology	4
MATH 3450	Principles of Bio-Statistics	4
ANSC 4084	Internship	3
ANSC 4401	Ethology	4
ANSC 4308	Environmental Physiology of Farm Animals	3
Advanced Electives from ANSC, RNRM, VTSC, BIOL, or CHEM		5
Total Hours		**35**

Minor in Animal Science

AGRI 1419	General Animal Science	4
ANSC 2450	Anatomy and Physiology of Domestic Animals	4
ANSC 3409	Feeds and Feeding	4
Select one of the following:		3-4
ANSC 1309	Introduction to Horse Production	
ANSC 2307	Livestock Evaluation	
ANSC 2308	Introduction to Meat and Carcass Evaluation	
ANSC 3305	Equine Evaluation	
ANSC 3301	Livestock Management	
ANSC 3303	Pastures and Forages	
ANSC 3315	Animal Diseases and Parasites	
ANSC 3408	Physiology of Reproduction	
ANSC 3409	Feeds and Feeding	
ANSC 3421	Meat Science	

Select one of the following:		3
ANSC 4302	Dairy Cattle Production	
ANSC 4303	Beef Cattle Production	
ANSC 4310	Swine Production	
ANSC 4313	Sheep and Goat Production	
ANSC 4320	Stocker Cattle Production and Feedlot Management	
ANSC 4330	Horse Enterprise Management	
ANSC 4340	Modern Livestock Production	
Total Hours		**18**

Minor in Veterinary Science

Required courses:		
ANSC 1105	Introduction to Veterinary/Medical Terminology	1
VTSC 4313	Animal Welfare	3
VTSC 4381	Veterinary Law and Ethics	3
Select one:		3
ANSC 3315	Animal Diseases and Parasites	
VTSC 4321	Companion Animal Diseases and Health Management	
VTSC 4331	Equine Diseases and Health Management	
Select one:		3
ANSC 3308	Principles of Animal Nutrition	
VTSC 4323	Companion Animal Nutrition & Care	
Electives (select 6 hours from the following):		6
ANSC 3408	Physiology of Reproduction	
VTSC 3317	Zoonotic Diseases	
VTSC 4353	Shelter Animal Medicine I	
VTSC 4356	Veterinary Forensics	
or VTSC 4372	Equine Forensics: Cruelty	
VTSC 4355	Shelter Animal Medicine II	
VTSC 4337	Equine Colic	
MGMT 3300	Principles of Management	
or ACCT 3300	Accounting Concepts	
Total Hours		**19**

Certificate in Equine Science

Tarleton State University's (TSU) Equine Certificate Program provides students with the opportunity to develop real-world, hands-on experience in equine production and enterprise management. As part of the program's curriculum, students can hone knowledge and skills in equine production from conception to the sale ring.

The goal is not to just reproduce horses. Teaching students to be thoughtful, educated professionals who know the importance of genetic selection, reproduction and foal development as well as developing and marketing high quality prospects is the overarching emphasis.

ANSC 1309	Introduction to Horse Production	3
ANSC 3101	Issues in the Equine Industry	1
ANSC 3314	Applied Equine Nutrition	3
ANSC 4301	Equine Breeding Management	3
ANSC 4330	Horse Enterprise Management	3
VETE 4331	Equine Disease & Health Management	3
Choose one of the following:		3
ANSC 2305	Horse Handling Techniques	
ANSC 3305	Equine Evaluation	
ANSC 3325	Equine Exercise Physiology and Conditioning	
ANSC 3335	Equine Behavior Modification	
ANSC 3340	Basic Therapeutic Riding	
ANSC 4084	Internship Must be equine-focused.	
ANSC 4090	Special Topics in Animal Science Must be equine focused.	
ANSC 4325	Equine Sales Prep and Marketing	
Choose one of the following:		3
ANSC 3320	Animal Event Production	
ANSC 4325	Equine Sales Prep and Marketing	
ACOM 3321 [WI (p. 396)]	Communicating Agriculture to the Public	
AGSD 3302 [WI (p. 396)]	Agricultural Sales and Services	
ANSC 4300 [WI (p. 396)]	Research and Writing in Animal Science	
AGEC 4325	Recreation and Tourism Economics	
AGEC 4350	Natural Resource Economics	
COMM 3304	Interpersonal Communication	
MGMT 3300	Principles of Management	
MGMT 3304	Small Business Management	
MGMT 3350	Organization Behavior	

MKTG 3312	Marketing	
Total Hours		**22**

NOTE: Some of the courses within the Equine Certificate may require other course prerequisites.

Certificate in Shelter Animal Medicine

VTSC 4313	Animal Welfare	3
VTSC 4323	Companion Animal Nutrition & Care	3
VTSC 4353	Shelter Animal Medicine I	3
VTSC 4355	Shelter Animal Medicine II	3
VTSC 4356	Veterinary Forensics	3
or VTSC 4372	Equine Forensics: Cruelty	
Total Hours		**15**

Professors

- Leatherwood, Jessica Dr.
- Jones, Trinette Dr.
- Rosiere, Randall Dr.
- Webb, Edward Dr.

Associate professors

- Guay, Kimberly Dr.
- Runyan, Cheyenne Dr.

Assistant professors

- Barker, Samantha Dr.
- Contreras-Correa, Zully Dr.
- Martinez, Rafael Dr.
- Perez-Herandez, Gabriela Dr.
- Rankins, Ellen Dr.
- Wellmann, Kimberly Dr.

Instructor

- Blackwell, Kara Ms.
- Cockrell, Michelle Ms.
- Engeling, Heather Ms.
- Harwell, Eric Mr.
- Jackson, Jared Mr.
- Plowman, Michaela Ms.
- Purnell, Emily Ms.
- Red, Blaine Mr.
- Turner, Paxton Mr.
- Walton, Roberta Ms.

Adjunct Instructors

- Haile, Nathan Mr.
- Jablinski, Anne DVM
- Jircik, Justin Mr.
- Moody, Mandy DVM
- Reiter, Amanda Dr.

Courses

ANSC 1105. Introduction to Veterinary/Medical Terminology. 1 Credit Hour (Lecture: 1 Hour, Lab: 0 Hours).
Introduction to veterinary/medical terminology. The foundation of veterinary terminologies and medical language roots, prefixes, suffixes, and combining forms are covered along with musculoskeletal and dissection/spatial body positions. Designed to provide a comprehensive entry-level study of medical language for health career learners.

ANSC 1119. General Animal Science Laboratory. 1 Credit Hour (Lecture: 0 Hours, Lab: 2 Hours).
General overview of animal agriculture including beef cattle, dairy cattle, swine, sheep, goats, and horses; major disciplines of animal production including breeding and genetics, nutrition, reproductive physiology and products; use of live animals, physical and virtual models and feedstuffs/equipment to enhance experiential learning approach. Prerequisite: Concurrent enrollment in ANSC 1319.

ANSC 1202. Barbeque Science. 2 Credit Hours (Lecture: 1 Hour, Lab: 2 Hours).
An introduction to the science of meat preparation, incorporating food quality and safety, ingredients and flavors, cooking techniques, cut selection and consumer preferences. Lab fee: $2.

ANSC 1309. Introduction to Horse Production. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Introduction to fundamental aspects of horse production. Topics related to physiology of behavior, reproduction and hormones, nutrition and feed management, healthcare, and sectors of the equine industry will be presented in detail. Additional topics of horse management (handling and care) will also be included in course.

ANSC 1319. General Animal Science. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The scientific study of animal agriculture involving beef cattle, dairy cattle, swine, sheep, goats, and horses. Topics covered will include general management practices, reproduction, nutrition, health, handling, genetic selection, shelter/housing and marketing strategies and procedures. Prerequisites: Concurrent enrollment in ANSC 1119.

ANSC 2101. Animal Science Industry. 1 Credit Hour (Lecture: 1 Hour, Lab: 0 Hours).
A review of the opportunities available to Animal Science students upon graduation, and the appropriate concentrations to achieve career goals. Prerequisites: ANSC major; AGRI 1419 or ANSC 1319 and ANSC 1119.

ANSC 2305. Horse Handling Techniques. 3 Credit Hours (Lecture: 1 Hour, Lab: 5 Hours).
Skills development in basic horse handling and application of general principles of equine psychology and behavior. Prerequisite: instructor approval Lab fee: $2.

ANSC 2307. Livestock Evaluation. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Evaluation of market animals including beef cattle, swine, sheep and goats. Emphasis is on selection of breeding animals and evaluation of market animals and economically important characteristics for each species. Prerequisite: AGRI 1419 or ANSC 1319 and ANSC 1119.

ANSC 2308. Introduction to Meat and Carcass Evaluation. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Evaluation of meat cuts and carcasses from cattle, swine, sheep and goats. Emphasis is on factors affecting quality and yield for each species. Techniques for evaluation and for preparation of written reasons. This course is required for participation in the meat judging program, but is open to all students meeting the prerequisites. Prerequisite: AGRI 1419 or ANSC 1319 and ANSC 1119.

ANSC 2309. Dairy Cattle Judging. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Evaluation of live dairy cattle for physical conformation. Emphasis will be placed on practical analysis and decision-making in evaluating live cattle on physical conformation for contest purposes. Communication skills will be developed to present evaluation decisions. Prerequisites: ANSC 1319 & ANSC 1119.

ANSC 2312. Meat Animal and Carcass Evaluation. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Evaluation of live animals, carcasses and wholesale cuts of beef, pork, and lamb. Factors influencing grades, yields, and values in slaughtered cattle swine, and sheep. Meat quality and general principles of meat science are also introduced. Prerequisite: ANSC 1319.

ANSC 2450. Anatomy and Physiology of Domestic Animals. 4 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
Introduction to comparative anatomy and physiology of domestic animals. The roles of the various systems of the animal body will be studied with practical applications made to animal production. Topics include anatomy and physiology of the skeletal, muscular, cardiovascular, pulmonary, digestive and reproductive systems. Prerequisite: AGRI 1419 or ANSC 1319 and ANSC 1119.

ANSC 3101. Issues in the Equine Industry. 1 Credit Hour (Lecture: 1 Hour, Lab: 0 Hours).
Integration of theory and applied knowledge gained in previous equine courses to demonstrate critical thinking and communication skills to address relevant issues in the equine industry. Prerequisites: ANSC 1309; and ANSC 3305 or ANSC 3314 or ANSC 3340.

ANSC 3301. Livestock Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the fundamental concepts and principles of beef cattle, sheep, goats, and swine production. Integration of principles of nutrition, breeding, physiology, and marketing into complete production and management programs. Structure of industry, enterprise establishment, systems of production, production practices, and improvement programs. Experiential practicums will be incorporated. Prerequisite: AGRI 1419 or ANSC 1319 and ANSC 1119; Agriculture Services and Development majors and Agriculture Education majors only.

ANSC 3302. Sustainable Animal Agriculture. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A discussion of the economic, environmental and social components of sustainability and their role in the production and management of livestock. Prerequisite: AGRI 1419 or ANSC 1319 and ANSC 1119; BIOL 1406 or BIOL 1407; AGEC 2317 or ECON 2302.

ANSC 3303. Pastures and Forages. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Identification, management, and utilization of forage crops as they pertain to the production of livestock and related species, including pastures, hay, and silage.

ANSC 3304. Understanding the Behavior of Livestock. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Application of behavior of cattle, horses, sheep, goats and swine to their production and management; basic principles and physiology of behavior, perception, training, predators, stress and animal welfare. Prerequisite: AGRI 1419 or ANSC 1319 and ANSC 1119; ANSC 2350 or 2450.

ANSC 3305. Equine Evaluation. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Influence of heredity, conformation, training and environmental effects on performance horses. A detailed evaluation of the athletic performance and conformation as it relates to function, and the criteria used for evaluation and selection of breeding, race and performance animals. Prerequisite: ANSC 1309 or ANSC 1310.

ANSC 3308. Principles of Animal Nutrition. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
An evaluation of the anatomical, physiological, and biochemical processes of digestion, absorption, and metabolism; overview of nutrients (water, carbohydrates, lipids, proteins, minerals, and vitamins) and their use within the body of animals. Prerequisite of AGRI 1419 or ANSC 1319 and ANSC 1119 recommended. Prerequisites: BIOL 1406 or 1407; and one of CHEM 1407, (1311 and 1111), or (1312 and 1112).

ANSC 3309. Applied Animal Nutrition and Feeding. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Application of nutritional concepts; understanding of nutrient requirements and development of appropriate rations for livestock. Prerequisite: ANSC 3308.

ANSC 3310. Equine Reproduction. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This is a science and theory based course for students interested in the anatomy, endocrinology, physiology, behavior, and management considerations of the mare, stallion, and foal as they relate to the horse. The course covers updates and innovations in knowledge and technologies within equine reproductive science. Prerequisite: ANSC 1309 and ANSC 3408.

ANSC 3314. Applied Equine Nutrition. 3 Credit Hours (Lecture: 2 Hours, Lab: 1 Hour).
Detailed examination of the unique anatomy and physiology of the digestive system of the horse. Dietary requirements nutrients as well as the major sources, needs, functions, and physiological aspects of inadequate and excess intake of nutrients. Common feedstuffs and use in formulating equine diets will be introduced. Prerequisite: ANSC 1309 or ANSC 3308 or instructor approval.

ANSC 3315. Animal Diseases and Parasites. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Exploratory study of infectious and non-infectious farm animal diseases, parasites, and parasitic diseases. Introduction to disease and parasite prevention through sanitation and treatment. Prerequisite: AGRI 1419 or ANSC 1319 and ANSC 1119.

ANSC 3319. Animal Breeding. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Expanded course description: Students will be exposed to the practical application of genetic principles to livestock breeding. Following a review of Mendelian inheritance, topics will focus on the improvement of economic traits in livestock. Phenotypic expression of genes, including environmental influences, gene action, and the laws of probability; phenotypic variation, including quantitative and qualitative traits; and population genetics will be covered. Students will next focus on selection of breeding stock and breeding programs. In addition, breeding systems for specific species of livestock will be discussed. Prerequisites: AGRI 3409, or BIOL 3303 and BIOL 3103, or BIOL 3403, or equivalent.

ANSC 3320. Animal Event Production. 3 Credit Hours (Lecture: 1 Hour, Lab: 4 Hours).
Planning and implementing animal events. Publicity, promotion, budgeting, scheduling, soliciting sponsors, and event production.

ANSC 3323. Ethical Issues in Agriculture and the Natural Resources. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Students will examine the several major ethical issues facing agriculture and natural resources sciences in our current society. Readings, discussions and lectures will focus on the scientific, capitalistic, and philosophical motivation in common ethical issues. Upon completion of the course, students will be able to construct and dissect ethical arguments and hopefully become more aware of the ethical dilemmas we all face each day. Credit will not be awarded for both ANSC 3323 and WSES 3323.

ANSC 3325. Equine Exercise Physiology and Conditioning. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Influence of exercise and conditioning on muscle physiology, cardiovascular physiology, the biomechanics of locomotion, and energy utilization. Fundamental rehabilitation and treatment of sports injuries will be introduced. Prerequisites: ANSC 1309; ANSC 2350 or ANSC 2450.

ANSC 3335. Equine Behavior Modification. 3 Credit Hours (Lecture: 1 Hour, Lab: 5 Hours).
Application of the principles of equine psychology to train horses. Students will be assigned a young horse to halter train for fundamental groundwork. Prerequisite: Approval of instructor Lab Fee: $2.

ANSC 3340. Basic Therapeutic Riding. 3 Credit Hours (Lecture: 1 Hour, Lab: 6 Hours).
Study and application of the methods of using the horse in a therapeutic riding program. Guidelines from Professional Association of Therapeutic Horsemanship International will be used. Students will gain practical experience in the development and conduct of a therapeutic riding program.

ANSC 3341. Advanced Therapeutic Riding. 3 Credit Hours (Lecture: 1 Hour, Lab: 6 Hours).
Advanced studies in the use of the horse in a therapeutic riding program. Students will gain the hands-on experience and the information about riding, instruction and safety necessary to become a Certified Therapeutic Riding Instructor with the Professional Association of Therapeutic Horsemanship International. Prerequisite: ANSC 3340 or instructor approval.

ANSC 3360. Dairy Farm Evaluation. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
On-site dairy farm inspections, evaluating management systems, and developing recommendations to enhance farm performance. Topics include dairy economics, management, and records. Prerequisite: AGRI 1419 or ANSC 1319 and ANSC 1119.

ANSC 3408. Physiology of Reproduction. 4 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
Fundamental aspects of animal reproduction: basic reproductive anatomy, physiology, endocrinology, histology and behavior and how to apply it to production and effective management of domestic livestock. Prerequisites: AGRI 1419 or ANSC 1319 and ANSC 1119; ANSC 2350 or ANSC 2450.

ANSC 3409. Feeds and Feeding. 4 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
Basic digestive anatomy and physiology; proximate analysis, forage analysis, carbohydrates, fats, proteins, minerals, vitamins, roughages, concentrates supplements and basic ration formulation. Prerequisite: Junior classification; AGRI 1419 or ANSC 1319 and ANSC 1119. Lab fee $2.

ANSC 3421. Meat Science. 4 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
Basic physical and chemical components of meat and their influence on specific attributes of meat and meat products. Scientific and technical procedures involved in processing food animals, and anatomy, nomenclature, and evaluation of meats. Food safety issues in the meat industry and Hazard Analysis Critical Control Points. Prerequisites: AGRI 1419 or ANSC 1319 and ANSC 1119; ANSC 2350 or ANSC 2450.

ANSC 4061. Animal Science Study Tour. 1-3 Credit Hours (Lecture: 0 Hours, Lab: 1-3 Hours).
Field course in animal agriculture designed to acquaint students with live animal operations, related businesses, and food/feed facilities. Includes travel to various sites. No more than 6 hours can count towards the ANSC degree. Prerequisite: Instructor approval. No more than 6 hours can count towards the ANSC BS degree.

ANSC 4084. Internship. 1-3 Credit Hours (Lecture: 0 Hours, Lab: 1-3 Hours).
Formally arranged and approved on-the-job training with cooperating sponsor in a commercial or private sector of the livestock or meats industries. A minimum of 40 hours per credit earned is required. Oral and written reports of internship experience are required. This course may be offered pass/fail. No more than 3 credits may count towards the ANSC-BS. Prerequisite: Approval of department head.

ANSC 4086. Animal Science Problems. 1-4 Credit Hours (Lecture: 0 Hours, Lab: 1-4 Hours).
Individualized study of current topics in student's major concentration of study or supporting discipline. Specific content and credit dependent upon student's interest, needs, and depth of study. May be repeated for a maximum of 6 semester hours credit. Prerequisite: Senior classification and advance approval by academic advisor.

ANSC 4090. Special Topics in Animal Science. 1-4 Credit Hours (Lecture: 1-4 Hours, Lab: 0 Hours).
Special Topics. (Credit-variable) This course deals with selected topics in animal science not covered by existing courses and may be repeated for credit when topics vary, with a maximum of six hours counting toward the degree. Prerequisite Course(s): Approval of department head.

ANSC 4185. Senior Seminar. 1 Credit Hour (Lecture: 1 Hour, Lab: 0 Hours).
A review of current problems and developments in animal science; professional opportunities and responsibilities; individual investigations and reports. Prerequisite: ANSC 4300 and Senior classification.

ANSC 4300. Research and Writing in Animal Science. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
Detailed discussions and literature review of current knowledge in areas such as reproductive and alimentary physiology, nutrition, parasitology, pharmacology, and genetics. Topics will include experimental design and statistical evaluation of agricultural research. Students will prepare various types of writings based on scientific literature. Prerequisite: senior classification in agriculture.

ANSC 4301. Equine Breeding Management. 3 Credit Hours (Lecture: 1 Hour, Lab: 5 Hours).
Advanced theory and practices associated with equine reproduction, including breeding soundness exams, record keeping, and health care. Practices related to personnel management and economics of a equine breeding operation will be introduced. Prerequisite: ANSC 3408.

ANSC 4302. Dairy Cattle Production. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Principles of dairy science and their application to the feeding and management of dairy cattle. Topics include herd improvement, selection, feeding, replacement stock development, disease control, animal welfare, milk marketing, and associated management practices. Prerequisite: ANSC 3408; ANSC 3409 or ANSC 3309; or permission of instructor.

ANSC 4303. Beef Cattle Production. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
An overview of the beef cattle industry, with emphasis on the seedstock and cow-calf sectors. A study of the fundamental concepts and principles of beef cattle production. Integration of principles of nutrition, breeding, physiology, and marketing into complete production and management programs. In-depth coverage of seedstock and cow-calf segments of the industry, with introduction to stocker cattle production and feedlot management. Prerequisite: ANSC 3408; ANSC 3309 or ANSC 3409; previous or concurrent enrollment on ANSC 3319.

ANSC 4308. Environmental Physiology of Farm Animals. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Studies of farm animals and interactions with their physical environment. Detailed attention is given to the effects of changes and extremes in natural and artificial animal environments, including temperatures, shelter, altitude, humidity, crowding, and other stress factors associated with modern livestock production and handling practices. Prerequisites: AGRI 1419 or AGRI 1319 or ANSC 1319 and ANSC 1119; ANSC 2350 or ANSC 2450.

ANSC 4310. Swine Production. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Applications of marketing, nutrition, genetics, breeding and reproduction to modern swine production systems. Prerequisite: ANSC 3408; ANSC 3309 or ANSC 3409; previous or concurrent enrollment on ANSC 3319.

ANSC 4312. Meat Processing and Merchandising. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The chemical and physical characteristics of meats and their relations to the processing and manufacturing of meat food items. Carcass value as influenced by merchandising techniques and practices. Sanitation control and commercial and retail operations will be stressed. Prerequisite: ANSC 3421 or approval of department head.

ANSC 4313. Sheep and Goat Production. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Practical applications of breeding, feeding, management, disease and parasite control with regard to range and farm conditions; fitting and showing. Wool and mohair production; grading; sorting; and marketing. Prerequisite: ANSC 3408; ANSC 3309 or ANSC 3409; previous or concurrent enrollment in ANSC 3319.

ANSC 4314. Food Quality Assurance. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The basis behind food quality control/assurance is discussed along with its application to various food systems to control and improve the quality and safety of our food supply. Prerequisite: CHEM 1407, or CHEM 1311 and CHEM 1111 Lab fee: $2.

ANSC 4319. Biotechnology in Agriculture. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
A study of modern biotechnology in agriculture today. This course will explore important advancements and tools in fields such as genetics, agronomy, and bioinformatics. It will also examine the legal constraints and ethical debates that surround these technologies. Credit will not be awarded for both ANSC 4319 and ANSC 5319. Prerequisites: AGRI 3409, or BIOL 3303 and 3103, or instructor approval.

ANSC 4320. Stocker Cattle Production and Feedlot Management. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
An in-depth examination of nutrition, marketing, consumer relations, and management of beef cattle stocker and feedlot operations. . Prerequisite: ANSC 3421; ANSC 3309 or ANSC 3409, or instructor approval.

ANSC 4325. Equine Sales Prep and Marketing. 3 Credit Hours (Lecture: 1 Hour, Lab: 4 Hours).
Preparing and marketing horses for sale. Business strategies, marketing, catalog preparation, public relations, product presentation, fitness, and sale preparation of horses. Prerequisite: ANSC 2305 or instructor approval.

ANSC 4330. Horse Enterprise Management. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Individualized instruction in management techniques for horse enterprises including but not limited to record systems, marketing, business operation procedures, professionalism and liabilities. Students will be challenged to locate information and resources and apply knowledge to the management of horses in several aspects of the horse industry. Prior knowledge of basic equine management and terminology is assumed. Prerequisite: ANSC 4301 or ANSC 3408; ANSC 3309 OR ANSC 3314.

ANSC 4335. Companion Animal Management. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Overview of anatomy, physiology, genetics, health, behavior, nutritional needs and welfare considerations of companion animals. Emphasis will be in canine, feline and other companion animals. Breeding ethics and business enterprise management practices will be introduced. Prerequisite: ANSC 3309 or ANSC 3314 or VTSC 4323; ANSC 3408 and previous or concurrent enrollment in ANSC 3319.

ANSC 4336. Assisted Breeding Technology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Reproductive principles and techniques in modern breeding programs for farm livestock and other species. Prerequisites: ANSC 2350 OR BIOL 2401; BIOL 3303 and BIOL 3103, or AGRI 3409.

ANSC 4338. Value-Added Processed Meats. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
The application of scientific principles and practices to further processed meat products. Interrelationships among tissue characteristics, ingredients, handling practices, processing technologies and storage conditions as they affect the quality, safety, and stability of muscle foods. Prerequisite: ANSC 3421.

ANSC 4340. Modern Livestock Production. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Overview of beef, dairy, swine, small ruminant and poultry production systems and their applications. Modern concepts, ideas, and methodology associated with the application of technology to reproduction, breeding, health, nutrition and nutrient utilization, across various management schemes. Prerequisite: Senior classification; ANSC 3309, ANSC 3409, ANSC 3314 or VTSC 4323.

ANSC 4351. Environmental Stewardship in Animal Agriculture. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Techniques and practices in animal production for good stewardship of land, water, and air. Review of applicable state and federal environmental laws. Prerequisites: AGRI 1419 or ANSC 1319 and ANSC 1119; CHEM 1311 and 1111 or CHEM 1407; BIOL 1406 or BIOL 1407.

ANSC 4360. Lactation Physiology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A systematic overview of lactation physiology using dairy cattle as the primary model. Topics include mammary gland anatomy, milk secretion, mammary gland development, and disease impacts. Prerequisites: ANSC 2350 and ANSC 3408.

ANSC 4361. Animal Science Study Tour. 3 Credit Hours (Lecture: 0 Hours, Lab: 3 Hours).
Field course in animal agriculture designed to acquaint students with live animal operations, related businesses, and food/feed facilities. Includes travel to various sites. Prerequisite: Instructor approval.

ANSC 4390. Special Topics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Selected topics in the animal sciences. May be repeated for credit when topics vary, with a maximum of six hours. Prerequisite: approval of department head.

ANSC 4401. Ethology. 4 Credit Hours (Lecture: 3 Hours, Lab: 4 Hours).
An introductory course in the behavior of animals, with emphasis on the natural selection, ontogeny, and function of behaviors as they relate to feeding, reproduction, predator-avoidance, and other traits. Both proximate (sensory, hormonal, genetic) and ultimate (ecological and evolutionary) mechanisms are addressed. Prerequisite: BIOL 1406 and BIOL 1407; WSES 2322 or AGRI 1419 or ANSC 1319 and ANSC 1119. Lab fee: $2.

Department of Wildlife and Natural Resources

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The Department of Wildlife and Natural Resources is dedicated to understanding and managing the earth's ecosystems. Our mission is to prepare students to confront the environmental challenges of present and future generations by sustainably managing natural resources through multidisciplinary teaching, experiential learning, and research.

Many of our degree plans fulfill the educational requirements for certification by various professional organizations. Examples of professional certifications our graduates may be prepared for are:

- Certified Wildlife Biologist -- The Wildlife Society
- Certified Fisheries Professional --The American Fisheries Society
- Certified Ecologist --The Ecological Society of America
- Certified Rangeland Professional --The Society for Range Management
- Certified Ecological Restoration Practitioner --Society for Ecological Restoration
- Certified Professional Soil Scientist -- Soil Science Society of America
- Certified Crop Advisor --The American Society of Agronomy

The Department of Wildlife and Natural Resources administers the following degrees:

Bachelor Science in Wildlife, Sustainability, and Ecosystem Sciences

The BS in Wildlife, Sustainability, and Ecosystem Sciences offers the following concentrations:

• Wildlife and Ecology Management: Designed to prepare graduates for a career in wildlife conservation and management and fulfills all the educational requirements to become a Certified Wildlife Biologist through The Wildlife Society. Graduates frequently find careers with state and federal wildlife agencies, non-governmental organizations, environmental consulting firms, and private ranches.

• Fisheries Ecology and Management: Combines a basic understanding of fish biology and aquatic sciences with a deep knowledge of applied ecology and fisheries management. Curriculum meets the requirements of the American Fisheries Society for a Certified Fisheries Professional. Graduates find careers in government as well as the private sector managing freshwater and marine fisheries for both recreational and commercial fishing.

• Rangeland Ecology and Management: Encompasses such disciplines as range and wildlife science and restoration ecology. Provides coursework to prepare a student to become Rangeland Management certified by the Society for Range Management, or a Certified Restoration Practitioner endorsed by the Society for Ecological Restoration. Focuses on management of plant communities in range, forest, and other wildland systems. Graduates find careers on private ranches and farms as owners or as professional consultants. They are also prepared for careers with the Natural Resource Conservation Service, Texas A&M AgriLife Extension, the US Forest Service, and The Nature Conservancy.

• Natural Resource Policy: For students interested in the laws and policies aspects of natural resource ecology and management. This degree includes a component of natural resource policy courses. It will prepare students for a career focused on natural resource law or policy formation such as a natural resource agency administrative position.

• Entomology: Designed to provide students with an ecological framework of insects and related arthropods for a holistic approach towards the conservation and management of insects as they pertain to ecosystem services and other species of wildlife. Curriculum equips students with scientifically and environmentally-sound techniques to pursue careers in ecological monitoring, environmental risk assessment, integrated pest management, nature education, and taxonomy at the private, state, and federal level.

General Education Requirements (p. 396)		**42**
AGRI 3409	Genetics	4
BIOL 1406 [shared]	Biology for Science Majors	
BIOL 1407	Biology for Science Majors II	4
CHEM 1311 [shared]	College Chemistry I (Lecture)	
CHEM 1111 [shared]	College Chemistry I (Laboratory)	
MATH 1314 [shared]	College Algebra	
MATH 2412	Precalculus Math	4
MATH 1342	Elementary Statistical Methods	3
or MATH 3450	Principles of Bio-Statistics	
WSES 2322	Principles of Wildlife Conservation and Management	3
WSES 2405	Ecology for Natural Resource Managers	4
WSES 2451	Introduction to Geographic Information Systems	4
ENTO 3312	General Entomology	3
SOIL 3301	Soil Science	3
WSES 3350 [WI (p. 396)]	Writing for the Natural Resource and Environmental Sciences	3
or ENGL 3309	Professional Writing	
WSES 3385 [WI (p. 396)]	Fish and Wildlife Laws and Administration	3
WSES 4187	Senior Capstone Seminar	1
WSES 4301	Population Dynamics, Modeling, and Analysis	3
WSES 4302	Habitat Management	3
Experiential Learning Requirement (choose one):		1
WSES 4084	Internship in the Natural Resource Sciences	
WSES 4088	Undergraduate Research in the Natural Resource Sciences	
WSES 4340	Field Camp	
WSES 4342	Study Abroad	
Total Hours		**88**

Entomology

CHEM 1312	College Chemistry II (Lecture)	3
CHEM 1112	College Chemistry II (Laboratory)	1
ENTO 3112	General Entomology Lab	1
PHIL 2303 [shared]	Introduction to Logic	
WSES 4309 [WI (p. 396)]	Plant-Animal Interactions	3
WSES 4401	Ethology	4
Analysis Elective (choose one):		3
WSES 3308	Analysis of Natural Resource Data	
WSES 4313	Vegetation Measurement, Inventory, and Monitoring	
Plant Science Elective (choose one):		3
AGRI 1307	Agronomy	
BIOL 3415	Plant Taxonomy	
HORT 1301	Horticulture	
WSES 3406	Wildland Plant Identification and Ecology	
WSES 3408	Dendrology and Woody Plant Identification	
Entomology Electives:		7
Choose at least 7 hours of ENTO 3XXX or 4XXX.		
Wildlife and Natural Resources Electives:		7

Choose at least 7 hours in ENTO or WSES 3XXX or 4XXX.		
Total Hours		**32**

Fisheries Ecology and Management

A student who completes all the requirements for the BS in Wildlife and Natural Resources - Fisheries Ecology and Management Concentration will satisfy the coursework requirements for certification as a Certified Fisheries Professional by the American Fisheries Society. To complete certification, graduates must apply to the American Fisheries Society.

BIOL 4462	Ichthyology	4
BIOL 4441	Freshwater Biology	4
PHIL 2303 [shared]	Introduction to Logic	
SOIL 3101	Soil Science Laboratory	1
WSES 3308	Analysis of Natural Resource Data	3
or MATH 2413	Calculus I	
WSES 3309	Aquaponics	3
or WSES 3317	Fisheries and Aquatic Sampling Techniques	
WSES 3340	Fisheries Conservation and Management	3
WSES 3386	Human Dimensions of Fish and Wildlife Management	3
Botany requirement (choose one):		4
BIOL 3415	Plant Taxonomy	
BIOL 3430	Phycology	
WSES 3406	Wildland Plant Identification and Ecology	
WSES 3408	Dendrology and Woody Plant Identification	
Physical Science Elective (choose at least 3 hours):		3
CHEM 1312 & CHEM 1112	College Chemistry II (Lecture) and College Chemistry II (Laboratory)	
SOIL 2112	Soil Morphology	
SOIL 3412	Soil Genesis, Morphology, and Classification	
SOIL 4213	Soil Physical Properties	
SOIL 4450	Soil Nutrient Cycling	
Wildlife and Natural Resources Electives:		4
Choose at least 4 hours from WSES, ENTO, or SOIL 3XXX or 4XXX.		
Total Hours		**32**

Natural Resource Policy

COMM 3305	Environmental Communication	3
or WSES 3387	Natural Resource Conservation Outreach and Interpretation	
LEGL 2330	Introduction to Legal Studies	3
POLS 3307	Principles of Public Administration	3
POLS 3310 [WI (p. 396)]	Environmental Policy	3
POLS 4310 [WI (p. 396)]	International Environmental Issues	3
POLS 4311 [WI (p. 396)]	Environmental Law	3
WSES 3386	Human Dimensions of Fish and Wildlife Management	3
Ecology and Conservation Elective (choose one):		3
WSES 3314	Pollinator Ecology and Conservation	
WSES 3340	Fisheries Conservation and Management	
WSES 4326	Big Game Ecology and Management	
WSES 4327	Avian Ecology and Management	
WSES 4341	Southern African Ecology and Culture	
Ethics Elective (choose one):		3
LEGL 3332	Legal Ethics	
PHIL 3301	Ethics in the Professions	
PHIL 4305	Environmental Ethics	
Wildlife and Natural Resources Electives:		5
Choose at least 5 hours from WSES, SOIL, PHIL, POLS, or LEGL (3XXX or 4XXX). Writing-intensive strongly recommended.		
Total Hours		**32**

Rangeland Ecology and Management

A student who completes all the requirements for the BS in Wildlife and Natural Resources - Rangeland Ecology and Management Concentration will satisfy the coursework requirements for certification as a Professional in Rangeland Management by the Society for Range Management. To complete certification, graduates must apply to the Society for Range Management.

AGEC 2317 [shared]	Introductory Agricultural Economics	
AGEC 4350	Natural Resource Economics	3
SOIL 3302	Soils, Land Use, and The Environment	3
SOIL 4212	Soil Ecology	2
WSES 3320	Watershed Management	3
or BIOL 3436	Plant Physiology	

WSES 4309 [WI (p. 396)]	Plant-Animal Interactions	3
WSES 4311	Fire Ecology	3
WSES 4313	Vegetation Measurement, Inventory, and Monitoring	3
Rangeland Plant Identification Requirement (choose one):		3
WSES 3406	Wildland Plant Identification and Ecology	
WSES 3408	Dendrology and Woody Plant Identification	
Rangeland Vegetation Management Requirement (choose one):		3
WSES 3313	Plant Diversity and Conservation	
WSES 4303	Ecological Restoration	
Advanced Ecology and Management Elective (choose one):		3
WSES 3314	Pollinator Ecology and Conservation	
WSES 4326	Big Game Ecology and Management	
WSES 4327	Avian Ecology and Management	
WSES 4341	Southern African Ecology and Culture	
Wildlife and Natural Resources Elective:		3
Choose at least 3 hours from WSES, ENTO, or SOIL 3XXX or 4XXX.		
Total Hours		**32**

Wildlife Ecology and Management

A student who completes all the requirements for the BS in Wildlife and Natural Resources - Wildlife Ecology and Management Concentration will satisfy the coursework requirements for certification as an Associate Wildlife Biologist by The Wildlife Society. To complete certification, graduates must apply to The Wildlife Society.

PHIL 2303 [shared]	Introduction to Logic	
WSES 3310	Wildlife Management Techniques	3
WSES 4401	Ethology	4
or WSES 3403	Natural History of the Vertebrates	
Advanced Ecology and Management Elective (choose one):		3
WSES 3314	Pollinator Ecology and Conservation	
WSES 4326	Big Game Ecology and Management	
WSES 4327	Avian Ecology and Management	
WSES 4341	Southern African Ecology and Culture	
Analysis Elective (choose one):		3
WSES 3308	Analysis of Natural Resource Data	
WSES 4313	Vegetation Measurement, Inventory, and Monitoring	
Botany Elective (choose two):		8
BIOL 3415	Plant Taxonomy	
WSES 3406	Wildland Plant Identification and Ecology	
WSES 3408	Dendrology and Woody Plant Identification	
Natural Resource Policy, Administration, and Law Elective (choose one):		3
SOIL 3302	Soils, Land Use, and The Environment	
WSES 3386	Human Dimensions of Fish and Wildlife Management	
Physical Science Elective (choose one):		1
CHEM 1312 & CHEM 1112	College Chemistry II (Lecture) and College Chemistry II (Laboratory)	
PHYS 1401	College Physics I	
SOIL 2112	Soil Morphology	
SOIL 3412	Soil Genesis, Morphology, and Classification	
SOIL 3101	Soil Science Laboratory	
SOIL 4213	Soil Physical Properties	
SOIL 4450	Soil Nutrient Cycling	
Terrestrial Vertebrate Zoology Elective (choose one):		4
BIOL 4430	Ornithology	
BIOL 4440	Herpetology	
BIOL 4451	Mammalogy	
Wildlife and Natural Resources Electives:		3
Choose at least 3 hours in WSES or SOIL 3XXX or 4XXX.		
Total Hours		**32**

Bachelor of Science in Horticultural and Plant Sciences

The BS in Horticultural and Plant Sciences offers the following concentrations:

• Horticultural Science: Firmly grounded in the biology of plant growth and development, with additional applied courses to give students a well-rounded set of skills to become horticulture scientists. For students with strong interests in science and/or technology opportunities in research related fields, including graduate studies. Graduates have the knowledge and skills to pursue a M.Sc. or Ph.D. degree or a career as a professor? (teacher, lecturer or instructor) at a university or research scientist for public and private organizations.

• Horticultural Management: Emphasizing floriculture, landscape management, and operations of nurseries and greenhouses. This applies to students interested in a profession of practical horticultural skills; this could range (or ranging from) from production of plants for food crops or wholesale nurseries, raising plants for use in parks, gardens and public green spaces, or giving garden design advice, including appropriate planting and care.

• Horticultural Business: Emphasizes the business aspect of the horticulture industry. Includes a strong horticulture foundation with a business foundation and courses in finance, economics, and retail merchandising. Applies to students interested in horticulture business management. Graduates have the knowledge and skills to manage a horticulture business or work in a market-associated position.

• Sustainable Agriculture and Agroecology: Emphasizes agronomy and crop sciences. Includes courses that highlights the three main objectives of sustainability: a healthy environment, economic profitability, and social and economic equity. Graduates have the knowledge to implement the best crop production and management practices used in agronomical and horticultural crops. With careful selection of agriculture and agroecology courses, horticulture graduates can take the International Certified Crop Adviser Exam sponsored by The American Society of Agronomy.

General Education Requirements (p. 396)		42
BIOL 1406 [shared]	Biology for Science Majors	
BIOL 1407 [shared]	Biology for Science Majors II	
BIOL 3407	Microbiology	4
BIOL 3420	Plant Pathology	4
BIOL 3436	Plant Physiology	4
CHEM 1311 & CHEM 1111	College Chemistry I (Lecture) and College Chemistry I (Laboratory)	4
CHEM 1312 & CHEM 1111	College Chemistry II (Lecture) and College Chemistry I (Laboratory)	4
CHEM 2323 & CHEM 2123	Organic Chemistry I and Organic Chemistry I Laboratory	4
ENGL 3309 [WI (p. 396)]	Professional Writing	3
ENTO 3312	General Entomology	3
HORT 1301	Horticulture	3
HORT 2320	Fundamentals of Gardening and Landscaping	3
MATH 2412 [shared]	Precalculus Math	
Extra Hour from MATH 2412		1
SOIL 3301 & SOIL 3101	Soil Science and Soil Science Laboratory	4
WSES 2405	Ecology for Natural Resource Managers	4
WSES 4187	Senior Capstone Seminar	1
Experiential Learning Requirement (choose one):		1
WSES 4084	Internship in the Natural Resource Sciences	
WSES 4088	Undergraduate Research in the Natural Resource Sciences	
WSES 4340	Field Camp	
WSES 4342	Study Abroad	
Total Hours		**89**

Horticultural Business

ACCT 2301	Principles of Accounting I-Financial	3
AGRI 2317 [shared]	Introductory Agricultural Economics	
AGRI 4350	Retail Merchandising of Agricultural Products	3
AGSD 3302 [WI (p. 396)]	Agricultural Sales and Services	3
HORT 3300	Plant Propagation	3
HORT 3390	Horticultural Plants	3
HORT 4301	Greenhouse and Nursery Management	3
Choose four hours from the following:		4
SOIL 3319	Composting	
SOIL 4212	Soil Ecology	
SOIL 4213	Soil Physical Properties	
SOIL 4450	Soil Nutrient Cycling	
WSES 3314	Pollinator Ecology and Conservation	
WSES 3380	Ecological Pest Management	
WSES 4309 [WI (p. 396)]	Plant-Animal Interactions	
WSES 4324	Organic Agriculture	
Any upper-level HORT course		
Business electives:		6
Choose any six hours of ACCT, AGEC, BCIS, BLAW, BUSI, ECON, FINC, MGMT, or MKTG (at least three hours must be 3XXX or 4XXX).		
Total Hours		**28**

Horticultural Management

AGEC 2317 [shared]	Introductory Agricultural Economics	
AGRI 4350	Retail Merchandising of Agricultural Products	3
HORT 3300	Plant Propagation	3
HORT 3390	Horticultural Plants	3
HORT 4301	Greenhouse and Nursery Management	3
WSES 3314	Pollinator Ecology and Conservation	3
WSES 4309 [WI (p. 396)]	Plant-Animal Interactions	3
HORT 3370	Floriculture Operations and Management	3
HORT 3301	Landscape Design	3

Electives (choose at least seven hours of the following):		7
HORT 3333	Mushroom Cultivation and Utilization	
HORT 4320	Landscaping with Native Plants	
HORT 4470	Turfgrass Management and Irrigation	
SOIL 4212	Soil Ecology	
SOIL 4213	Soil Physical Properties	
SOIL 4450	Soil Nutrient Cycling	
WSES 3309	Aquaponics	
WSES 3313	Plant Diversity and Conservation	
WSES 3380	Ecological Pest Management	
WSES 4303	Ecological Restoration	
WSES 4324	Organic Agriculture	
Total Hours		**31**

Horticultural Science

BIOL 3303 & BIOL 3103	Genetics and Genetic Techniques	4
or AGRI 3409	Genetics	
HORT 3300	Plant Propagation	3
HORT 3390	Horticultural Plants	3
HORT 4301	Greenhouse and Nursery Management	3
MATH 3450	Principles of Bio-Statistics	4
PHIL 2303 [shared]	Introduction to Logic	
SOIL 4450	Soil Nutrient Cycling	4
WSES 3314	Pollinator Ecology and Conservation	3
WSES 4309 [WI (p. 396)]	Plant-Animal Interactions	3
Elective (choose four hours from the following):		4
HORT 3301	Landscape Design	
HORT 3309	Aquaponics	
HORT 3333	Mushroom Cultivation and Utilization	
HORT 3370	Floriculture Operations and Management	
HORT 4323	Principles of Horticultural Crop Production	
HORT 4470	Turfgrass Management and Irrigation	
SOIL 3319	Composting	
SOIL 4212	Soil Ecology	
SOIL 4213	Soil Physical Properties	
WSES 3313	Plant Diversity and Conservation	
WSES 3380	Ecological Pest Management	
WSES 4303	Ecological Restoration	
WSES 4324	Organic Agriculture	
Total Hours		**31**

Sustainable Agriculture and Agroecology

AGEC 2317 [shared]	Introductory Agricultural Economics	
AGRI 1307 & AGRI 1107	Agronomy and Agronomy Laboratory	4
MATH 3450	Principles of Bio-Statistics	4
SOIL 4212	Soil Ecology	2
or SOIL 4213	Soil Physical Properties	
SOIL 4450	Soil Nutrient Cycling	4
Environmental Policy Requirement (choose one):		3
POLS 3310 [WI (p. 396)]	Environmental Policy	
POLS 4310 [WI (p. 396)]	International Environmental Issues	
POLS 4311 [WI (p. 396)]	Environmental Law	
GEOG 2451	Introduction to Geographic Information Systems	4
WSES 3380	Ecological Pest Management	3
WSES 4325	Crop Production and Management	3
Upper-level Elective:		4
Choose at least four hours from WSES, SOIL, or HORT 3XXX or 4XXX		
Total Hours		**31**

Bachelor of Science in Zoo Animal Care & Management

This program combines wildlife science and animal science to create a unique educational experience that addresses the special needs of wildlife in confined situations. Graduates are equipped to manage wild animals in zoos, animal parks, game breeding operations, and wildlife rehabilitation facilities.

General Education Requirements (p. 396)		**42**
ANSC 3308	Principles of Animal Nutrition	3
BIOL 1406 [shared]	Biology for Science Majors	
BIOL 1407	Biology for Science Majors II	4
CHEM 1311 & CHEM 1111 [shared]	College Chemistry I (Lecture) and College Chemistry I (Laboratory)	
ENGL 3309 [WI (p. 396)]	Professional Writing	3
or WSES 3350	Writing for the Natural Resource and Environmental Sciences	
MATH 1314	College Algebra	3
MATH 1342	Elementary Statistical Methods	3
MATH 2412 [shared]	Precalculus Math	
PHIL 2303 [shared]	Introduction to Logic	
WSES 1201	Introduction to Natural Resource Conservation and Management	2
WSES 2305	Wildlife and Natural Resource Ecology	3
WSES 2105	Wildlife and Natural Resource Ecology Laboratory	1
WSES 2322	Principles of Wildlife Conservation and Management	3
WSES 3311	Wildlife Diseases	3
WSES 3385 [WI (p. 396)]	Fish and Wildlife Laws and Administration	3
WSES 4187	Senior Capstone Seminar	1
WSES 4401	Ethology	4
Ecology and Management Elective (choose one):		3
WSES 3314	Pollinator Ecology and Conservation	
WSES 3340	Fisheries Conservation and Management	
WSES 4326	Big Game Ecology and Management	
WSES 4327	Avian Ecology and Management	
WSES 4341	Southern African Ecology and Culture	
WSES 4312	Wildlife Translocation	
WSES 4322	Carnivore Ecology and Conservation	
Zoology Requirement (choose one):		4
WSES 3403	Natural History of the Vertebrates	
BIOL 4430	Ornithology	
BIOL 4440	Herpetology	
BIOL 4451	Mammalogy	
BIOL 4462	Ichthyology	
ENTO 3312 & ENTO 3112	General Entomology and General Entomology Lab	
Choose one of the following:		1
WSES 4084	Internship in the Natural Resource Sciences	
WSES 4088	Undergraduate Research in the Natural Resource Sciences	
Choose one of the following:		3
WSES 4341	Southern African Ecology and Culture	
WSES 4340	Field Camp	
Advanced WSES Course		
Total Hours		**89**

Pre-Veterinary Medicine

AGRI 3409	Genetics	4
BIOL 3407	Microbiology	4
BIOL 4374	Biochemistry I	3
CHEM 1312	College Chemistry II (Lecture)	3
CHEM 1112	College Chemistry II (Laboratory)	1
CHEM 2323	Organic Chemistry I	3
CHEM 2123	Organic Chemistry I Laboratory	1
CHEM 2325	Organic Chemistry II	3
CHEM 2125	Organic Chemistry II Laboratory	1
COMM 1315 [shared]	Public Speaking	
or COMM 2302	Business and Professional Speaking	
PHYS 1401	College Physics I	4
Choose at least four hours of upper-level WSES, BIOL, or CHEM.		4
Total Hours		**31**

Zoo Biology and Management

ANSC 1319 & ANSC 1119	General Animal Science and General Animal Science Laboratory	4
ANSC 2450	Anatomy and Physiology of Domestic Animals	4
or BIOL 3406	Comparative Vertebrate Anatomy	
BIOL 3303	Genetics	3
BIOL 4325	Conservation Biology	3

COMM 3305	Environmental Communication	3
or WSES 3387	Natural Resource Conservation Outreach and Interpretation	
Choose one of the following:		3
WSES 3323	Ethical Issues in Agriculture and the Natural Resources	
WSES 3386	Human Dimensions of Fish and Wildlife Management	
WSES 2303	Introduction to Zoo Biology and Management	3
WSES 3316	Zoo Animal Husbandry	3
Choose one of the following:		3
ANSC 3408	Physiology of Reproduction	
ANSC 4308	Environmental Physiology of Farm Animals	
ANSC 3304	Understanding the Behavior of Livestock	
ANSC 3315	Animal Diseases and Parasites	
WSES 3303	Veterinary Entomology	
BIOL 3340	Introduction to Marine Biology	
WSES 3309	Aquaponics	
BIOL 3449	Animal Diversity	
Zoo and Aquarium Electives (Choose two credit hours):		2
WSES 3104	Exotic Mammal Husbandry	
WSES 3105	Reptile and Amphibian Husbandry	
WSES 3106	Exotic Bird Husbandry	
WSES 4220	Zoo Animal Training and Enrichment	
WSES 4221	Fish Husbandry and Aquaria Management	
KINE 1224	Scuba Diving	
Total Hours		**31**

Minors

Minor in Crop Science

AGRI 1307 & AGRI 1107	Agronomy and Agronomy Laboratory	4
SOIL 3301 & SOIL 3101	Soil Science and Soil Science Laboratory	4
ENTO 3312	General Entomology	3
BIOL 3436	Plant Physiology	4
WSES 4325	Crop Production and Management	3
Choose one of the following:		3-4
FDSC 4408	Sustainable Food Systems	
WSES 3314	Pollinator Ecology and Conservation	
WSES 3380	Ecological Pest Management	
WSES 4324	Organic Agriculture	
HORT 3415	Weed Management	
SOIL 4450	Soil Nutrient Cycling	
SOIL 4212 & SOIL 4213	Soil Ecology and Soil Physical Properties	
BIOL 3420	Plant Pathology	
BIOL 3303 & BIOL 3103	Genetics and Genetic Techniques	
AGRI 3409	Genetics	
Total Hours		**21-22**

Minor in Fisheries Management

WSES 2405	Ecology for Natural Resource Managers	4
or BIOL 4401	Ecology	
WSES 2322	Principles of Wildlife Conservation and Management	3
WSES 3340	Fisheries Conservation and Management	3
BIOL 4462	Ichthyology	4
Choose one of the following:		3-4
BIOL 4441	Freshwater Biology	
ENTO 3316	Aquatic Entomology	
Choose one of the following:		3
BIOL 3340	Introduction to Marine Biology	
WSES 3309	Aquaponics	
WSES 3385 [WI (p. 396)]	Fish and Wildlife Laws and Administration	
Total Hours		**20-21**

Minor in Entomology

ENTO 3312	General Entomology	3
ENTO 3112	General Entomology Lab	1

ENTO 3316	Aquatic Entomology	3
ENTO 3314	Pollinator Ecology and Conservation	3
WSES 4309 [WI (p. 396)]	Plant-Animal Interactions	3
ENTO 4402	Insect Taxonomy and Systematics	4
Select one of the following:		3-4
ENTO 3380	Ecological Pest Management	
BIOL 3449	Animal Diversity	
WSES 4301	Population Dynamics, Modeling, and Analysis	
WSES 4313	Vegetation Measurement, Inventory, and Monitoring	
Total Hours		**20-21**

Minor in Environmental Science

GEOL 1307	Introduction to Environmental Science	3
GEOL 3310	Geomorphology	3
ENVS 2451	Introduction to Geographic Information Systems	4
EASC 3350	Environmental Science	3
ENVS 3307	Systems Thinking	3
EASC 4313 [WI (p. 396)]	Environmental Techniques	3
Total Hours		**19**

Minor in Horticulture Management

HORT 1301	Horticulture	3
HORT 2320	Fundamentals of Gardening and Landscaping	3
HORT 3300	Plant Propagation	3
Upper-level HORT or ENTO electives		6
Choose 6 hours from HORT 3XXX or 4XXX or ENTO 3XXX or 4XXX.		
HORT or ENTO electives		3
Choose any three hours from HORT or ENTO		
Total Hours		**18**

Minor in Horticulture Science

HORT 1301	Horticulture	3
HORT 3300	Plant Propagation	3
HORT 3310	Regenerative Agriculture Systems	3
HORT 4323	Principles of Horticultural Crop Production	3
Select at least six hours from the following:		6
HORT 3309	Aquaponics	
HORT 3390	Horticultural Plants	
HORT 3415	Weed Management	
HORT 4324	Organic Agriculture	
HORT 4301	Greenhouse and Nursery Management	
HORT 4342	Study Abroad	
HORT 4470	Turfgrass Management and Irrigation	
WSES 3314	Pollinator Ecology and Conservation	
ENTO 3312	General Entomology	
SOIL 3301 & SOIL 3101	Soil Science and Soil Science Laboratory	
SOIL 4450	Soil Nutrient Cycling	
Total Hours		**18**

Minor in International Natural Resource Conservation

WSES 2405	Ecology for Natural Resource Managers	4
WSES 2322	Principles of Wildlife Conservation and Management	3
WSES 4342	Study Abroad	3
WSES 3404	The Vertebrate Fauna of Southern Africa	4
WSES 3409	The Flora of Southern Africa	4
WSES 4341	Southern African Ecology and Culture	3
Total Hours		**21**

Minor in Natural Resource Ecology

Choose one of the following:		3-4
WSES 2405	Ecology for Natural Resource Managers	
BIOL 4401	Ecology	
RNRM 3315	Range Ecology	
WSES 4309 [WI (p. 396)]	Plant-Animal Interactions	3
WSES 4311	Fire Ecology	3
SOIL 4212	Soil Ecology	2

BIOL 3353	Ecology and Evolution	3
Choose two of the following:		6
WSES 3314	Pollinator Ecology and Conservation	
WSES 4326	Big Game Ecology and Management	
WSES 4327	Avian Ecology and Management	
BIOL 4320	Behavioral Ecology	
Total Hours		**20-21**

Minor in Wildlife Management

WSES 2405	Ecology for Natural Resource Managers	4
WSES 2322	Principles of Wildlife Conservation and Management	3
WSES 3310	Wildlife Management Techniques	3
WSES 4302	Habitat Management	3
Select one of the following:		3
WSES 3305	GIS for Natural Resource Scientists	
WSES 3308	Analysis of Natural Resource Data	
WSES 3314	Pollinator Ecology and Conservation	
WSES 3406	Wildland Plant Identification and Ecology	
WSES 3408	Dendrology and Woody Plant Identification	
WSES 3311	Wildlife Diseases	
WSES 3385 [WI (p. 396)]	Fish and Wildlife Laws and Administration	
WSES 3386	Human Dimensions of Fish and Wildlife Management	
WSES 3387	Natural Resource Conservation Outreach and Interpretation	
WSES 4301	Population Dynamics, Modeling, and Analysis	
WSES 4304	Population Genetics	
WSES 4305	Urban Wildlife and Fisheries	
WSES 4313	Vegetation Measurement, Inventory, and Monitoring	
WSES 4326	Big Game Ecology and Management	
WSES 4327	Avian Ecology and Management	
WSES 4341	Southern African Ecology and Culture	
WSES 4401	Ethology	
Select one of the following:		4
WSES 3403	Natural History of the Vertebrates	
BIOL 4430	Ornithology	
BIOL 4440	Herpetology	
BIOL 4451	Mammalogy	
Total Hours		**20**

Professors

- Breeden, Jeffrey Dr.
- Cummings, Hennen Dr.
- Muir, James Dr.
- Schwertner, T. Wayne Dr.

Associate professors

- Kafley, Hemanta Dr.
- Mathewson, Heather Dr.
- Mitchell, Adam Dr.
- Murray, Darrel Dr.

Assistant professors

- Erazo-Barradas, Mauricio Dr.
- Linhoff, Luke Dr.

Instructor

- Johnston, David
- Nugen, Crissa Dr.

Agriculture Courses

AGRI 1000. TCC Dual Admit. 0 Credit Hours (Lecture: 0 Hours, Lab: 0 Hours).

AGRI 1107. Agronomy Laboratory. 1 Credit Hour (Lecture: 0 Hours, Lab: 3 Hours).
This laboratory-based course accompanies AGRI 1307. Laboratory activities will reinforce the fundamental principles in the development, production, and management of field crops including growth and development, climate, plant requirements, pest management, and production methods. Prerequisite: AGRI 1307 or concurrent enrollment.

AGRI 1115. Horticulture. 1 Credit Hour (Lecture: 0 Hours, Lab: 1 Hour).

AGRI 1119. Introductory Animal Science. 1 Credit Hour (Lecture: 0 Hours, Lab: 1 Hour).

AGRI 1307. Agronomy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Principles and practices in the development, production, and management of field crops including growth and development, climate, plant requirements, pest management, and production methods.

AGRI 1309. Microcomputer Applications in Agriculture. 3 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
Microcomputer technology applied to management, record keeping, and agribusiness. Emphasis on the application of database, spreadsheet, and other business software in various agricultural environments. Lab fee $2.

AGRI 1315. Horticulture. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

AGRI 1407. Agronomy. 4 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).

AGRI 1415. Horticulture. 4 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).

AGRI 1419. General Animal Science. 4 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
The scientific study of animal agriculture involving beef cattle, dairy cattle, swine, sheep, goats, and horses. Topics covered will include general management practices, reproduction, nutrition, health, handling, genetic selection, shelter/housing and marketing strategies and procedures. Lab fee: $2.

AGRI 2301. Agricultural Power Units. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Fundamentals of internal combustion engine operation to include gasoline, diesel, and liquefied petroleum. Preventative maintenance and general servicing of tractor engine systems: intake & exhaust; fuel; lubrication; cooling; electrical; power trains; and hydraulic. Also covered are tractor tune-up; small engine operation maintenance & reconditioning; and plumbing & irrigation power systems. Lab fee: $2.

AGRI 2303. Agricultural Construction I. 3 Credit Hours (Lecture: 2 Hours, Lab: 3 Hours).
A course designed to acquaint students with principles and application of carpentry, tool maintenance, tool and hardware nomenclature, preparation of drawings and bills of materials, blueprint reading, and the preparation and use of concrete. Also included are maintenance needs for the home and agricultural buildings. Lab fee: $2.

AGRI 2304. Introductory Metals and Welding. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
Cold metal work, soldering, pipe fitting, tool conditioning, hardware nomenclature, arc and oxyacetylene welding. Lab fee: $2.

AGRI 2317. Introductory Agricultural Economics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introduction to economics principles and concepts in agriculture today as they relate to the American economic system. Emphasis will be on management problem-solving techniques under various situations, especially those agricultural in nature,including producing, processing, distributing, and consuming farm and ranch products.

AGRI 2330. Wildlife Conservation and Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Principles and practices used in the conservation and management of wildlife resources. Aesthetic, ecological, and recreational uses of public and private lands. Intended for non-wildlife and non-science majors; will not count toward Wildlife Science option in the BS in Wildlife, Sustainability, and Ecosystem Sciences and is not a prerequisite for advanced WSES courses.

AGRI 3409. Genetics. 4 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
Fundamental principles of genetics: variation, heredity, and interaction of genes, linkage, sex linkage, and mutation. Special emphasis given to breeding of farm crops and domestic animals. Laboratory includes demonstration of Mendelian ratios with field crops and Drosophila and an introduction to statistical methods as applied to agricultural research. Prerequisite: BIOL 1406 or 1407 and junior classification. Lab fee $7.

AGRI 4350. Retail Merchandising of Agricultural Products. 3 Credit Hours (Lecture: 1 Hour, Lab: 6 Hours).
Management of a retail store with emphasis on agricultural products, including meat, produce, live plants, and processed foods. Display, care, merchandising, inventory control, customer relations, and point of sale. Laboratory involves working shifts in the College of Agricultural and Environmental Sciences retail center and associated facilities.

Entomology Courses

ENTO 3112. General Entomology Lab. 1 Credit Hour (Lecture: 0 Hours, Lab: 3 Hours).
Anatomy, morphology, and identification of select insect taxa conducted in both laboratory and field setting. Use of dichotomous keys to identify insects. Specimen collection required. Prerequisite: Concurrent enrollment in ENTO 3312.

ENTO 3312. General Entomology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Principal orders of insects; the relation of anatomy and physiology of insects to control methods; insecticides and their uses; development, habits, and economic importance of more common insects with control methods for the injurious species. Prerequisite: C or better in BIOL 1406 or BIOL 1407.

ENTO 3314. Pollinator Ecology and Conservation. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Plant-insect interactions concerning floral resources and the conservation of pollinator insects. Floral morphology, coevolution of plant and pollinator, insect ecology and behavior, management of honeybees for commercial purposes, managing pollinators in urban and suburban settings, and conservation of pollinator habitat. Identifications of major pollinator insect groups, and techniques to monitor native pollinators and floral resources. Prerequisites: WSES 2405 or BIOL 4401; and WSES 3312.

ENTO 3316. Aquatic Entomology. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Identification of aquatic insects and interactions with their environment. General concepts in limnology and entomology; systematics, ecology, management of aquatic systems for insects, and conservation of freshwater invertebrates. Techniques for the sampling and monitoring of aquatic communities. Collection of immature aquatic insects is required. Prerequisite: ENTO 3312.

ENTO 3380. Ecological Pest Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introduction to the principles of managing pest populations to reduce economic and ecological loss in agriculture, horticulture, domestic, and natural settings in an environmentally compatible manner. Information gleaned from this course should prepare students to apply for state certification as a licensed pesticide applicator. Prerequisite: WSES 2405 and either WSES/ENTO 3312 or WSES 2301.

ENTO 4402. Insect Taxonomy and Systematics. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
Classification of insects and identification of insect orders and families in Texas and the southwestern United States. Systematics, phylogeny, morphology, and natural history of insect families and select taxa of environmental, economic, or medical importance. Identification of insects by sight and through use of dichotomous key. Prerequisite: ENTO 3312.

Horticulture Courses

HORT 1101. Horticulture. 1 Credit Hour (Lecture: 0 Hours, Lab: 1 Hour).

HORT 1301. Horticulture. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduction to the horticulture industry and the career opportunities that are available. The course includes an introduction to plant classification and structure, greenhouse construction and management, orchard and vegetable crops, and plant propagation.

HORT 1401. Horticulture. 4 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).

HORT 2320. Fundamentals of Gardening and Landscaping. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Designed for students with no gardening experience, this is an introductory course with a focus on basic landscape design and garden establishment using sustainable methods. A broad range of topics will be presented that include crop selection by season and geography, soil health and nutrients, and ecological pest management. This course will also include the principles and practices of garden-based learning and the application of horticulture in agriculture education programs. Biodiversity and the effects of organic and non-organic practices on the garden ecosystem will be emphasized. Students practice growing a garden using the techniques discussed in lecture.

HORT 2470. Introduction to Turfgrass Science. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
An introduction to turfgrass history, benefits, and use. Growth and development of various turfgrass species and their culture.

HORT 3300. Plant Propagation. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Principles of propagating plants, including vegetables, ornamentals, and fruits. Methods of handling seed; starting plants by the use of cuttings, layers, buds, grafts, and bulbs; ways of propagating specific plants; factors influencing growth of plants after transplanting. Prerequisites: BIOL 1406 and HORT 1301. Lab fee $2.

HORT 3301. Landscape Design. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Planting design and use of plants in the landscape. Use of drafting instruments, preparation of plans, perspective drawings, and cost estimates. Prerequisite: Prior completion of or concurrent enrollment in HORT 3390.

HORT 3309. Aquaponics. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Students will examine the pros and cons of various aquaponics methods like raft, nutrient film, vertical towers, and media filled beds and their applications for growing fish and plants sustainably for a family/community or for profit. Students will construct a backyard aquaponics system, establish/harvest plants, and prepare a meal in laboratory. Topics covered are plant and fish choices and recommendations; planting/growing techniques; fish biology, stocking rates, and feeds; plant/fish care and health; water quality; system design, filtration and plumbing components; daily operation; greenhouse management/seasonal adjustments; system start up; food preparation; economics and business considerations.

HORT 3310. Regenerative Agriculture Systems. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
This course will serve as a bridge between foundational horticulture concepts, agroecological processes, and regenerative agriculture systems that can be applied to horticultural crop, agronomic crop, and integrated crop-livestock grazing systems. Course curriculum will emphasize regenerative agriculture principles and practices that includes soil conservation, agroecology, sustainable farming methods, biodiversity, and organic agriculture. This course will examine how a healthy soil microbiome are a critical component of healthy soils and how healthy soils influence and contribute to biotic facilitation, nutrient cycling, symbiotic relationships, ecosystem provisioning, regulating, and supporting services. Students will learn the importance of soil structure and composition to rain water and irrigation infiltration. Cover crop dynamics will be explored and the important role cool and warm season cover crops play in regenerative agriculture. The importance of conservation agriculture through no-till and reduced tillage practices will be emphasized. The varied ecosystem services resulting from these and other natural resource conservation measures as they apply to horticultural cropping systems from a regenerative agriculture perspective are fundamental concepts that this course will convey. Topics of study will include the importance of crop selection, soil health, nutrient management, weed management, integrated pest management, phytoremediation, integrated crop-livestock grazing, and perennial/annual horticultural cropping systems.

HORT 3319. Plant Breeding. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A course focusing on the breeding and development of new cultivars of horticultural crops. Emphasis will be on traditional and molecular breeding methods for crops and the influence of scientific research, government policies, industry needs and consumer preferences on vegetable crop improvement. Prerequisite: HORT 1301 or AGRI 1307; and AGRI 3409 or (BIOL 3303 and BIOL 3103).

HORT 3333. Mushroom Cultivation and Utilization. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Culture techniques, environmental requirements, species selection, and production systems. Current state of mushroom production, innovations, and new opportunities in the field. Intended for majors and non-majors.

HORT 3370. Floriculture Operations and Management. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Principles and basic techniques in floral design and merchandising, introduction to the floral branch of the horticulture industry and floral production. The course will feature history of floral design, principles of design, design specific lab activities, work with the Floriculture contests in the spring, and hands-on design experience.

HORT 3390. Horticultural Plants. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Identification, classification, and characteristics of horticultural plants. Includes the study of trees, shrubs, aroids, cacti, bromeliads, ferns, begonias, and orchids. Prerequisite: HORT 1301 or equivalent or approval of department head. Lab fee $2.

HORT 3415. Weed Management. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
General principles in the development of weed management programs. Common weed ecology and life cycles, land management factors, herbicide selection and performance, and cultural control strategies are presented. Laboratory includes weed identification and herbicide application methods. Prerequisites: AGRI 1307 and AGRI 1107; or WSES 1305; or HORT 1301.

HORT 4086. Horticultural Problems. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 1-6 Hours).
Individualized study of current topics in student's major concentration of study or supporting discipline. Specific content and credit dependent upon student's interest, needs, and depth of study.

HORT 4088. Undergraduate Research in Horticulture. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 1-6 Hours).
Fundamental research methods will be addressed through a faculty-directed project. Participation in an abbreviated lecture series may be required. Project components may include a literature review, data collection and analysis, testing, planning, project design, and/or computer modeling. Student may be required to prepare a final report and produce a presentation. Course will be graded as satisfactory or unsatisfactory. Prerequisite: Approval of the instructor.

HORT 4090. Special Topics. 1-6 Credit Hours (Lecture: 1-6 Hours, Lab: 1-6 Hours).
Selected topics in horticulture. May be repeated for credit when topics vary.

HORT 4301. Greenhouse and Nursery Management. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
A study of the variables affecting greenhouse and nursery crop production. Both economic and physical variables will be explored. Particular emphasis will be placed on management techniques used by commercial establishments in producing and marketing ornamental nursery and greenhouse plants. Prerequisites: HORT 1301 and 3300. Lab fee $2.

HORT 4320. Landscaping with Native Plants. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Identification, characterization, and utilization of herbaceous and woody plants indigenous to Texas and other areas useful for landscaping purposes. Principles and procedures of xeriscaping will be emphasized. Field trips will be required. Prerequisite: HORT 1301.

HORT 4323. Principles of Horticultural Crop Production. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Students will dig into the intricate world of horticultural cropping systems learning principles, practices, and sustainable management techniques necessary to be successful at commercial fruit and vegetable production. Vegetable production techniques including plant health, nutrient management, integrated pest management, weed management, disease identification, environmental stress resilience, agricultural adaptation, irrigation, conservation agriculture, and ecosystem services are some of the primary topics of study. Additional topics of this course include crop selection, crop rotation, and sustainable farm design to maximize production. Seasonal variations (spring, summer, fall, and winter) that influence crop selection and crop rotation will be presented for the different regions of Texas. Each class member will gain practical horticultural crop production through active participation in vegetable production in our horticultural gardens that integrates different fruit and vegetable crops using applied management practices learned in class. Prerequisite: HORT 1301.

HORT 4324. Organic Agriculture. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Organic Agriculture will examine a brief history of organic farming, the organic food movement, and modern organic industry development. Students will learn USDA-NOP rules and regulations and the USDA organic certification process needed to certify farms/ranches organic. The course will emphasize the science of horticultural organic crop production (fruits and vegetables) for different agroecosystems and the required organic management principles and practices that meet organic production standards. The course will study different organic agricultural production systems that integrate agroecology, regenerative agriculture, and integrated pest management concepts into organic crop and animal production systems. Organic crop nutrient management, forage and grazing management, plant propagation and greenhouse management, soil health, and pest management (weed, arthropod, and pathogen) are fundamental components of this course.

HORT 4330. Horticultural Enterprises. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Horticultural business and educational enterprises will be visited or explored. Students are required to complete a business portfolio which will include photographs and written documents. Prerequisite: Jr or Sr classification. Lab fee: $2.

HORT 4342. Study Abroad. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Conducted at various domestic and international locations for extended periods (frequently outside the United States). Hands-on activities and experiences in agriculture and natural resources. Topics will vary. Enrollment requires a significant study abroad program fee.

HORT 4470. Turfgrass Management and Irrigation. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
Characteristics and management of turfgrasses used for home lawns, recreational areas and sports fields. Turfgrass irrigation system design. Prerequisites: HORT 2470; or AGRI 1307 and AGRI 1107.

Soil Science Courses

SOIL 2112. Soil Morphology. 1 Credit Hour (Lecture: 1 Hour, Lab: 0 Hours).
Soil morphology, characterizations of soil, and judging of soils for various uses by field-based assessment. May receive credit for WSES 2112 or SOIL 2112.

SOIL 2375. Soil as the Basis for Society. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The underpinnings of the scientific principles of soils, how people have harmed them, and why everyone should be concerned with how we treat them. This course may not be used to fulfill the degree requirements for wildlife or ecosystem sciences.

SOIL 3101. Soil Science Laboratory. 1 Credit Hour (Lecture: 0 Hours, Lab: 4 Hours).
Basic laboratory techniques used to analyze soil chemical, physical, and biological properties. Hands on examples will demonstrate core soil science principles. Prerequisites: ENVS 3301 or SOIL 3301 (or concurrent enrollment); and CHEM 1311 and 1111, CHEM 1407, or CHEM 1409.

SOIL 3301. Soil Science. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Basic principles of soil science, including physical, biological, and chemical properties. Discussion will include soils applications in wildland, cropland, and developed environments. This course does not include a laboratory section. Credit will not be awarded for both this course and WSES 3401. Prerequisites: CHEM 1311 and 1111, CHEM 1407, or CHEM 1409.

SOIL 3302. Soils, Land Use, and The Environment. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Interactions among soil physical, chemical, and biological processes affecting soil, water, and environmental quality. Addressed in relation to land use management practices such as erosion control, soil conservation, soil reclamation, riparian buffers, bioswales, and artificial wetlands. Land use planning tools, including WebSoil Survey and GIS will be used. Prerequisites: WSES/ENVS 3401; or WSES/SOIL 3301 and WSES/SOIL 3101.

SOIL 3319. Composting. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
The art and science of composting of agricultural, municipal, foodservice and household wastes to include composting techniques, waste products and feedstocks, aerobic vs. anaerobic processes, evaluation of composted products and their beneficial uses. Biological processes used to decompose organic materials will be studied. Prerequisites: Junior standing or permission of the instructor.

SOIL 3412. Soil Genesis, Morphology, and Classification. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
Soil development, classification, and mapping. Laboratory work will consist of field-based study of the morphological features of the soil profile and mapping of designated areas using standardized methods. Student may receive credit for either WSES 3412 or SOIL 3412. Prerequisites: SOIL 3301 and SOIL 3101.

SOIL 4212. Soil Ecology. 2 Credit Hours (Lecture: 2 Hours, Lab: 0 Hours).
Characterizations of organisms in the soil food web, analyses of interrelationships among soil organisms, and assessments of interactions between soil organisms and their environmental conditions. Credit will only be given for WSES 4212 or SOIL 4212. Prerequisites: WSES 2405, SOIL 3301, and SOIL 3101.

SOIL 4213. Soil Physical Properties. 2 Credit Hours (Lecture: 2 Hours, Lab: 0 Hours).
Soil physical characteristics and their relationship to soil management. Methods of measuring soil and soil conservation. Soil phases, soil water properties, particle size, clay and clay mineralogy, and environmental impacts. Credit will only be given for WSES 4213 or SOIL 4213. Prerequisites: SOIL 3301 and SOIL 3101.

SOIL 4450. Soil Nutrient Cycling. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
Plant nutrition, soil nutrient cycling, and nutrient management. Biological, physical, and chemical soil properties and implications for nutrient availability to crops and nutrient fate in the environment. Plant nutrition and soil fertility problems and corrective action, soil and nutrient management. Credit will only be given for WSES 4450 or SOIL 4450. Prerequisites: SOIL 3301 and SOIL 3101.

Wildlife, Sustainability, and Ecosystem Sciences Courses

WSES 1119. Natural Resource Competition I. 1 Credit Hour (Lecture: 1 Hour, Lab: 0 Hours).
This course provides an introduction to various natural resource-based competitive events. Competition rules, conduct, and etiquette are discussed. The students are introduced to basic facts regarding their chosen field of study. Prerequisites: Approval of the instructor.

WSES 1201. Introduction to Natural Resource Conservation and Management. 2 Credit Hours (Lecture: 2 Hours, Lab: 0 Hours).
This introductory course provides a comprehensive overview of the field of fish, wildlife, rangeland, and natural resource conservation, designed to expose students to the diverse scientific, policy, and management disciplines that are essential for protecting our natural resources. Students will explore the core principles of conservation biology, ecosystem management, and the role of humans in shaping the environment. Topics will cover a broad range of issues, including habitat preservation, biodiversity conservation, species management, environmental ethics, and the impact of climate change on wildlife populations. Special attention will be given to the importance of maintaining healthy ecosystems, addressing threats such as habitat fragmentation and invasive species, and understanding the social, economic, and political aspects of conservation work.

WSES 1301. Society, Natural Resources, and the Environment. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides a broad overview of the role of the environment and natural resources in human society, with particular emphasis on Texas and the United States. A history of the environmental movement is presented. Students study the importance of natural resources in providing basic human necessities, and how these resources are managed. Various careers in environmental science, natural resource management, and wildlife conservation are also discussed.

WSES 1307. Concepts and Controversies in Food Studies. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Principles of food studies and exploration of the role food narratives and exposés play in the consumer's perception of the current food supply. Foundation for understanding the connections among food production, ecology, ethics, cuisine, nutrition and health within the framework of sustainability. Can receive credit for either FDSC 1307 or WSES 1307.

WSES 2105. Wildlife and Natural Resource Ecology Laboratory. 1 Credit Hour (Lecture: 0 Hours, Lab: 3 Hours).
Field methodologies used in the investigation of ecological systems including terrestrial plant, terrestrial animal, and aquatic systems. For students who have completed or are currently enrolled in an introductory ecology course with no laboratory component. Corequisite: WSES 2305.

WSES 2119. Natural Resource Competition II. 1 Credit Hour (Lecture: 1 Hour, Lab: 0 Hours).
Intended for students with basic understanding of the conduct of their chosen natural resource event, this course provides more advanced study of the topic. Students expand upon the introductory material discussed in Natural Resource Competition I to include a wider array of natural resource science related facts and concepts. Prerequisites: WSES 1119 or approval of the instructor.

WSES 2301. General Entomology. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Principal orders of insects; the relation of anatomy and physiology of insects to control methods; insecticides and their uses; development, habits, and economic importance of more common insects with control methods for the injurious species. Prerequisite: C or better in BIOL 1406 or BIOL 1407.

WSES 2303. Introduction to Zoo Biology and Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Biology and management of zoo animals, and the management of zoos. Nutrition, reproduction, behavior, care, and welfare of confined wildlife species. Captive breeding, genetics, herd management, record keeping, and conservation biology. History of zoos and their role in conservation. Zoo exhibits and outreach, legal aspects, and ethics of confined wildlife management.

WSES 2305. Wildlife and Natural Resource Ecology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course explores the fundamental principles of ecology with applications to natural resource management. Topics include ecosystem structure and function, population and community dynamics, biodiversity, energy flow, nutrient cycling, and the impact of human activities on natural systems. Special emphasis is placed on terrestrial ecosystems, ecological interactions, and the use of ecological principles in conservation and management strategies.

WSES 2322. Principles of Wildlife Conservation and Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An in-depth treatment of the fundamental principles of wildlife conservation and management, stressing the application of ecological principles to achieve wildlife management objectives. Topics include conservation, management, and restoration of wildlife habitats; wildlife population assessment and management; human dimensions and human-wildlife interactions; management of wildlife in agricultural, range, and forested ecosystems; and wildlife policy at the local, state, national, and international level. Provides knowledge and understanding required for advancing in the wildlife and natural resource conservation disciplines. Satisfies requirements for Wildlife Science majors. Prerequisite for advanced wildlife science courses. Prerequisites: Grade of C or better in BIOL 1406 and BIOL 1407; grade of C or better in MATH 1316 or MATH 2412; and grade of C or better in WSES 2405, RNRM 3315, or BIOL 4401.

WSES 2405. Ecology for Natural Resource Managers. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
A study of the interactions of plants, animals, and the environment and how these interactions respond to human influence. Emphasis will be placed on terrestrial ecosystems (rangelands, grasslands, deserts, wetlands, and forests), and specific interactions among species which can be manipulated to achieve management outcomes. The laboratory will have a significant outdoor field component. Credit will not be awarded for both WSES 2405 and WSES 3103. Prerequisite: Grade of C or better in BIOL 1406 OR BIOL 1407.

WSES 2451. Introduction to Geographic Information Systems. 4 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
GIS is a computer-based information system used in managing and analyzing spatial data. This course introduces students to the science, theory and techniques of GIS including basic geodesy, spatial data capture, management and analysis, and cartographic output. Emphasis is placed on the use of technical analysis and software in order to provide students with skills and a conceptual base on which they can build further expertise in GIS. After completing this course, students will master basic concepts of GIS and hands-on skills with ArcGIS, a widely-used GIS package. Students will learn how to create, manipulate, project, and interpret geographically-referenced data. Students are strongly encouraged to take GEOG 1451: Pre-GIS. Students can only receive credit for either WSES 2451, GEOG 2451, EASC 2451 or ENVS 2451. Lab fee: $2.

WSES 3103. Ecological Field Methods Laboratory. 1 Credit Hour (Lecture: 0 Hours, Lab: 4 Hours).
Field methodologies used in the investigation of ecological systems including terrestrial plant, terrestrial animal, and aquatic systems. For students who have completed an introductory ecology or environmental biology course with no laboratory component. Credit will not be offered for both WSES 3103 and WSES 2405. Prerequisites: Grade of C or better in an approved 1000- or 2000-level ecology or environmental biology course; and a grade of C or better in BIOL 1406; and a grade of C or better in either BIOL 1407 or GEOL 1407; or approval of the department head.

WSES 3104. Exotic Mammal Husbandry. 1 Credit Hour (Lecture: 0 Hours, Lab: 2 Hours).
This course explores the principles and practices involved in the care, management, and conservation of exotic mammals in zoos, aquariums, and other animal facilities. Students will learn about a diverse range of exotic mammal species, coving topics including mammal taxonomy, dietary needs, exhibit design, behavioral enrichment, health care, and conservation. Prerequisite: WSES 2303.

WSES 3105. Reptile and Amphibian Husbandry. 1 Credit Hour (Lecture: 0 Hours, Lab: 2 Hours).
This course covers the specialized care and management of reptiles and amphibians in both zoo, aquarium and laboratory settings. Students will learn about the unique physiological and environmental needs of these species, including habitat design, temperature regulation, nutrition, and disease prevention. Topics also include breeding programs, handling techniques, and the ethical considerations involved in keeping reptiles and amphibians in captivity. Prerequisite: WSES 2303.

WSES 3106. Exotic Bird Husbandry. 1 Credit Hour (Lecture: 0 Hours, Lab: 2 Hours).
This course delves into the specialized care and management of exotic bird species, focusing on both private and public settings such as aviaries and zoological institutions. Students will learn about the unique dietary, environmental, and behavioral needs of a variety of exotic birds, including parrots, toucans, and raptors. Key topics include habitat design, nutrition, health care, breeding programs, and enrichment strategies that promote natural behaviors. Ethical considerations, species conservation, and the legal aspects of caring for exotic birds will also be explored. Prerequisite: WSES 2303.

WSES 3112. Dendrology Lab. 1 Credit Hour (Lecture: 0 Hours, Lab: 3 Hours).
Laboratory section to accompany WSES 3312. Hands-on study and identification of woody plants, including trees, shrubs, and vines. Morphological, ecological and phenological traits will be used in field identification. Proficiency in the use of a dichotomous key to identify plant species will be stressed. Prerequisite: Concurrent registration with WSES 3312.

WSES 3119. Natural Resource Competition III. 1 Credit Hour (Lecture: 1 Hour, Lab: 0 Hours).
This course is a more advanced treatment of the student's chosen natural resource event. It is intended for students with experience in the competition, having participated in at least one competitive event. Prerequisite: WSES 2119 and approval of the instructor.

WSES 3303. Veterinary Entomology. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Classification, biology, and control of arthropods associated with livestock and wildlife. Identification will be emphasized in the laboratory. Prerequisites: BIOL 1406 and BIOL 1407, or approval of the instructor.

WSES 3304. Food Processing. 3 Credit Hours (Lecture: 2 Hours, Lab: 3 Hours).
The world food supply, trends and traditions in diet and food sanitation, safety, security, and biotechnology, and impact of processing on diet quality. Lab fee: $2.

WSES 3305. GIS for Natural Resource Scientists. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
An intermediate course on the use of geographic information systems (GIS) in natural resource management. Builds on concepts learned in introductory GIS course. Laboratory exercises will apply knowledge learned in lectures to solve real world problems in natural resource management using GIS software. Prerequisite: WSES 2451 or GEOG 2451 Lab fee $2.

WSES 3307. Systems Thinking. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
This course focuses on the examination and analysis of complex systems, particularly in the environmental, natural resources, and sustainability fields. Major topics will include system structure, system behavior, feedback loops, stock and flow models, non-linear and emergent properties, self-organization, and the application of systems thinking to problem-solving. A significant component of the course will be development and analysis of computer models of complex systems. Prerequisite: C or better in MATH 1314 or equivalent, or approval of the instructor. Lab fee: 2.

WSES 3308. Analysis of Natural Resource Data. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Application of statistical principles to the analysis of natural resource science data. Methods of designing studies, managing and analyzing data, and interpreting results. Descriptive statistics, estimation, inference, tests of significance, measurements of relationship and correlation, and non-parametric analyses. Prerequisite: Grade of C or better in MATH 1342 or MATH 3450.

WSES 3309. Aquaponics. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Students will examine the pros and cons of various aquaponics methods like raft, nutrient film, vertical towers, and media filled beds and their applications for growing fish and plants sustainably for a family/community or for profit. Students will construct a backyard aquaponics system, establish/harvest plants, and prepare a meal in laboratory. Topics covered are plant and fish choices and recommendations; planting/growing techniques; fish biology, stocking rates, and feeds; plant/fish care and health; water quality; system design, filtration and plumbing components; daily operation; greenhouse management/seasonal adjustments; system start up; food preparation; economics and business considerations.

WSES 3310. Wildlife Management Techniques. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Field and laboratory techniques used in wildlife management and research. Determining age and food habits, population analysis, habitat analysis, and introduction to research. Modest cost of field trips will be borne by student. Prerequisites: Grades of C or better in WSES 2322, and either MATH 1316 or MATH 2412.

WSES 3311. Wildlife Diseases. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Basic mechanisms of disease as they occur in wildlife populations; interplay of environmental conditions, individual physiological requirements, and disease agents of various wildlife species. Epidemiology and management of infectious and non-infectious diseases. Prerequisites: Grade of C or better in WSES 2322 or approval of instructor.

WSES 3312. Dendrology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Study of woody plants, including trees, shrubs, and vines. Morphological, ecological and phenological traits will be used in field identification. The distribution, habitat, ecology, and importance of these species to wildlife and people will be explored, including community dynamics and the effects of disturbance and succession. Proficiency in the use of a dichotomous key to identify plant species will be stressed. Prerequisite: WSES 2405 or BIOL 4401; concurrent registration with WSES 3112.

WSES 3313. Plant Diversity and Conservation. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Patterns and distribution of plant diversity and threats to plant diversity. Plant communities found in a variety of range, forests, and other systems. Strategies and approaches used in plant conservation will be discussed. Prerequisite: Grade of C or better in WSES 2405, RNRM 3315, or BIOL 4401.

WSES 3314. Pollinator Ecology and Conservation. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Plant-insect interactions concerning floral resources and the conservation of pollinator insects. Floral morphology, coevolution of plant and pollinator, insect ecology and behavior, management of honeybees for commercial purposes, managing pollinators in urban and suburban settings, and conservation of pollinator habitat. Identifications of major pollinator insect groups, and techniques to monitor native pollinators and floral resources. Prerequisites: Grade of C or better in WSES 2405 or BIOL 4401; and ENTO 3312.

WSES 3315. Sustainability. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Explore the varied perspectives of sustainability and analyze factors that contribute to or decrease system sustainability. Investigation of the social, economic, and environmental barriers to achieving sustainable systems and options for overcoming these barriers. Credit cannot be awarded for both ENVS 3315 and WSES 3315. Prerequisite: GOVT 2305 or GOVT 2306 or POLS 2304.

WSES 3316. Zoo Animal Husbandry. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course explores the principles and practices of zoo and aquarium animal care and management, focusing on the needs of a diverse range of vertebrate and invertebrate species. Emphasis will be placed on ensuring the physical and psychological well-being of exotic animals while developing many foundational skills useful for zookeepers, aquarists, and other animal care professionals. Prerequisite: WSES 2303.

WSES 3317. Fisheries and Aquatic Sampling Techniques. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
An applied course in various techniques used in fisheries management and aquatic biology. Topics will include vertebrate and invertebrate capture, fish marking, aquatic vegetation measurement, and habitat classification. Trip may require extended field experiences under inclement weather conditions. Prerequisite: Grades of C or better in WSES 2322.

WSES 3319. Composting. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
The art and science of composting of agricultural, municipal, foodservice and household wastes to include composting techniques, waste products and feedstocks, aerobic vs. anaerobic processes, evaluation of composted products and their beneficial uses. Biological processes used to decompose organic materials will be studied. Prerequisites: Junior standing or permission of the instructor.

WSES 3320. Watershed Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Management and planning of range or forest land watersheds for maintenance or improvement of water and soil resources. Effects of vegetation and land management practices on water quality and quantity, erosion, and sedimentation. Prerequisite: Grade of C or better in WSES 2405, RNRM 3315, or BIOL 4401.

WSES 3323. Ethical Issues in Agriculture and the Natural Resources. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Students will examine the several major ethical issues facing agriculture and natural resources sciences in our current society. Readings, discussions and lectures will focus on the scientific, capitalistic, and philosophical motivation in common ethical issues. Upon completion of the course, students will be able to construct and dissect ethical arguments and hopefully become more aware of the ethical dilemmas we all face each day. Credit will not be awarded for both ANSC 3323 and WSES 3323.

WSES 3340. Fisheries Conservation and Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Fundamentals of fisheries management population estimation and management, harvest management, habitat management, applicable state and federal laws, invasive species management, and human dimensions. Prerequisites: Grade of C or better in WSES 2322.

WSES 3350. Writing for the Natural Resource and Environmental Sciences. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
Use of appropriate strategies to produce written professional and interpretive documents for wildlife and natural resource audiences. Prerequisites: ENGL 1301 and 1302.

WSES 3375. Population, Pollution, and Resource Depletion. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Principles and philosophies associated with the development, management, and use of natural resources are studied in the relationship to the ecological and social implications inherent in management alternatives involving the natural environmental and the use of renewable natural resources. Prerequisite: junior classification.

WSES 3380. Ecological Pest Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introduction to the principles of managing pest populations to reduce economic and ecological loss in agriculture, horticulture, domestic, and natural settings in an environmentally compatible manner. Information gleaned from this course should prepare students to apply for state certification as a licensed pesticide applicator. Prerequisites: WSES 2405 and either WSES/ENTO 3312 or WSES 2301.

WSES 3385. Fish and Wildlife Laws and Administration. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
A review and analysis of state and federal laws and international treaties and conventions affecting fish and wildlife; their application and administration. The organizational structure of state, federal and international agencies; their objectives, policies and practices. Prerequisites: GOVT 2305 and GOVT 2306 or; core complete in the Government/Political Science component area.

WSES 3386. Human Dimensions of Fish and Wildlife Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Today's natural resource scientist must interact with varied publics and stakeholders to achieve conservation goals. Few professionals receive training to navigate the murky waters of human dimensions of natural resources management. This course will give students an understanding of ways in which elements of human psychology and society shape our perceptions and management of wildlife and fisheries resources, and how to interact with these stakeholders to achieve ecologically-sound management and conservation. Prerequisite: Grade of C or better in WSES 2322.

WSES 3387. Natural Resource Conservation Outreach and Interpretation. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Survey of the history, principles, and content of the Texas Master Naturalist Program as an example of education, public outreach, volunteerism, and interpretation in natural resource conservation and management. Classroom and field instructional modules of foundational concepts and regional specifics about biotic and abiotic natural resources. Principles of interpretation and written analysis of observed teaching and interpretive activities by resource specialists. Students who co-register with the Prairie Oaks Chapter of the Texas Master Naturalist program and complete all class activities can satisfy a portion of the requirements for certification as a Texas Master Naturalist. Attendance at occasional weekend field trips required.

WSES 3403. Natural History of the Vertebrates. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
Survey of vertebrate taxa, including systematics, taxonomy, anatomy, physiology, and ecology. Identification in laboratory and field. Students required to handle preserved and live specimens. Students required to bear the cost of multiple overnight and multi-day field trips. Prerequisites: Grade of C or better in BIOL 1406 and BIOL 1407.

WSES 3404. The Vertebrate Fauna of Southern Africa. 4 Credit Hours (Lecture: 0 Hours, Lab: 4 Hours).
A general discussion of the animals of southern Africa, with particular focus on vertebrates. The course will stress both field identification and the ecological role of various animal species. Other topics will include the use of dichotomous keys and field guides for animal identification, the use of various methods to capture and count animal species, and the interspecific interactions. This is a field-based course that will be conducted entirely at various sites in southern Africa. Students will be required to handle small mammals and other live animals. Certification by a physician that the student has a current rabies vaccine may be required for participation in the course. Enrollment in the Southern Africa Study Abroad Program and payment of all associated fees is required. Prerequisite: Concurrent enrollment in WSES 4342; permission of the instructor.

WSES 3406. Wildland Plant Identification and Ecology. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
Identification and classification of grasses and other herbaceous plants in the North America, with emphasis on distribution, ecology, and economic value of species found in rangeland, forest, grassland, desert, and wetland systems in Texas. Proficiency in the use of a dichotomous key to identify plant species will be emphasized. Prerequisite: WSES 2405, RNRM 3315, or BIOL 4401.

WSES 3408. Dendrology and Woody Plant Identification. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
Study of woody plants, including trees, shrubs, and vines. Morphological, ecological and phenological traits will be used in field identification. The distribution, habitat, ecology, and importance of these species to wildlife and people will be explored, including community dynamics and the effects of disturbance and succession. Proficiency in the use of a dichotomous key to identify plant species will be stressed. Prerequisite: WSES 2405, RNRM 3315, or BIOL 4401.

WSES 3409. The Flora of Southern Africa. 4 Credit Hours (Lecture: 0 Hours, Lab: 4 Hours).
A general discussion of the plants of southern Africa, with particular focus on gymnosperms and angiosperms. The course will stress both field identification and the ecological role of various plant species. Other topics will include the use of dichotomous keys and field guides for plant identification, response of plants to range management practices, and the role of individual species in the management of wildlife habitat. This is a field-based course that will be conducted entirely at various sites in southern Africa. Enrollment in the Southern Africa Study Abroad Program and payment of all associated fees is required. Prerequisite: Concurrent enrollment in WSES 4342; permission of the instructor.

WSES 4084. Internship in the Natural Resource Sciences. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 1-6 Hours).
Formally arranged and approved on-the-job training with a cooperating sponsor in government of private sector of the natural resources or environmental field. A minimum of 75 hours of training is required for each hour of academic credit. A maximum of six hours of credit may be earned. A written report or other artifact of the experience may be required. Course will be graded as satisfactory or unsatisfactory. Prerequisite: Approval of the instructor.

WSES 4086. Problems in Natural Resource Sciences. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 1-6 Hours).
Individualized study of current topics in wildlife, natural resources, environmental science, or related discipline. Specific content and credit depend upon student's interests, needs, and depth of study. May be repeated as topics vary. Prerequisite: approval of instructor.

WSES 4088. Undergraduate Research in the Natural Resource Sciences. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 1-6 Hours).
Fundamental research methods will be addressed through a faculty-directed project. Participation in an abbreviated lecture series may be required. Project components may include a literature review, data collection and analysis, testing, planning, project design, and/or computer modeling. the student may be required to prepare a final report and produce a presentation. Course will be graded as satisfactory or unsatisfactory. Prerequisite: Approval of the instructor.

WSES 4090. Special Topics in the Natural Resource Sciences. 1-6 Credit Hours (Lecture: 0-6 Hours, Lab: 0-6 Hours).
Selected topics in wildlife, natural resources, environmental science, or related discipline. May be repeated for credit when topics vary.

WSES 4119. Natural Resource Competition IV. 1 Credit Hour (Lecture: 1 Hour, Lab: 0 Hours).
This course is intended for highly advanced students who have developed significant experience and competencies in their respective natural resource competition. Students will be expected to take a leadership role on the Tarleton State University Quiz Bowl Team and demonstrate significant ability during practice and competitive events. Prerequisite: WSES 3119 and approval of the instructor. Prerequisites: WSES 3119 and approval of the instructor.

WSES 4185. Seminar. 1 Credit Hour (Lecture: 1 Hour, Lab: 0 Hours).
Discussions of issues and developments in agriculture, natural resources, or environmental sciences.

WSES 4187. Senior Capstone Seminar. 1 Credit Hour (Lecture: 1 Hour, Lab: 0 Hours).
This one-hour seminar is designed to provide students with skills at synthesizing and presenting the results of lower-division work, specifically applied learning experiences such as internships, undergraduate research, and study abroad. Course will include a writing and public speaking component. Prerequisites: Successful completion of WSES 4084, WSES 4088, WSES 4340, or WSES 4342, or approval of the Department Head.

WSES 4220. Zoo Animal Training and Enrichment. 2 Credit Hours (Lecture: 1 Hour, Lab: 2 Hours).
This course focuses on the principles and techniques of animal training and enrichment in zoological settings. Students will explore behavioral conditioning methods, such as positive reinforcement, and their applications in training animals for care, medical procedures, and public demonstrations. The course also delves into the importance of environmental enrichment to promote natural behaviors, reduce stress, and enhance animal welfare. Prerequisite: WSES 2303 and WSES 3316.

WSES 4221. Fish Husbandry and Aquaria Management. 2 Credit Hours (Lecture: 1 Hour, Lab: 2 Hours).
This course provides an in-depth study of fish husbandry and the management of both freshwater and marine aquaria. Students will learn about the biology, care, and breeding of fish species, as well as the maintenance of water quality, filtration systems, and aquarium design. Key topics include nutrition, disease prevention, and the behavioral needs of aquatic organisms, alongside the ethical considerations of keeping fish in captivity. Through practical experience and theoretical knowledge, students will develop the skills needed to create healthy and sustainable aquatic environments for fish in both private and public settings. Prerequisite: WSES 2303 and WSES 3316.

WSES 4301. Population Dynamics, Modeling, and Analysis. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
An introduction to population biology, including models of simple population growth, competition, and predator-prey interactions; demographic rates; and life tables. Prerequisites: Grade of C or better in WSES 2322; and a grade of C or better in MATH 1342 or MATH 3450; or approval of instructor.

WSES 4302. Habitat Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Application of ecological principles to the management of native plant communities. Particular focus will be on plant ecology and physiology and their role in the conservation and management of wildlife habitat. Prerequisite: Grade of C or better in WSES 2322, or approval of the instructor.

WSES 4303. Ecological Restoration. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Landscape-scale, process-oriented approaches to ecological restoration. Enhancing resource capture, techniques in re-vegetation, and restoration of historic vegetation. Prescribed fire and grazing as restoration and management techniques for range and forest systems. Prerequisites: BIOL 3415, RNRM 3300, WSES 3406, or WSES 3408; and a grade of C or better in WSES 2405, RNRM 3315, or BIOL 4401.

WSES 4304. Population Genetics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An exploration of the principles of population genetics. Lecture will be a discussion of factors affecting the dynamics of allelic frequencies and the population-level consequences of manipulating these factors. Lecture topics will include the effects of selection, mutation, population size and genetic drift, neutral theory, population structure, inbreeding, and linkage disequilibrium. A significant portion of the class will be dedicated to working on problem sets to provide an empirical connection to population genetic theories. Prerequisite: BIOL 3303, BIOL 3403, or AGRI 3409.

WSES 4305. Urban Wildlife and Fisheries. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course trains students to establish and maintain diverse, self-sustaining urban wildlife and fish populations at levels in harmony with ecological, social, an economic values of the human community and to develop optimal levels of public appreciation and use of urban wildlife an fish resources and associated habitats. Includes discussions on conservation education as a tool for furthering urban wildlife and fisheries appreciation.

WSES 4306. Water Resources Policy and Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will present an overview of water policy, laws and regulations related to ecosystem resource management focusing on water quality, water quantity and water as habitat. Major US and Texas environmental laws regarding water will be covered including the respective agencies involved with regulations. Case studies will facilitate discussion of science-policy interactions with resource management in the implementation of these laws and regulations. Credit for SOCI 4306, WSES 4306, and SOCI 5306 will not be awarded.

WSES 4308. Horticultural Entomology. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Identification, nature of injury, life history, and control of common insects and related arthropods attacking turf grasses, landscape plants, shade, fruit, and nut trees, and greenhouse succulents. Management and control strategies utilizing chemical, cultural, and biological control agents.

WSES 4309. Plant-Animal Interactions. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
Arthropods and vertebrates in aquatic, terrestrial, managed, and natural systems spanning multiple scales and levels of organization. Prerequisite: Grade of C or better in WSES 2405, RNRM 3315, or BIOL 4401.

WSES 4310. Zoo Biology and Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Biology and management of zoo animals, and the management of zoos. Nutrition, reproduction, behavior, care, and welfare of confined wildlife species. Captive breeding, genetics, herd management, record keeping, and conservation biology. History of zoos and their role in conservation. Zoo exhibits and outreach, legal aspects, and ethics of confined wildlife management. Prerequisite: Grade of C or better in WSES 2322.

WSES 4311. Fire Ecology. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Ecological role of fire in natural systems, including rangelands, grasslands, shrublands, woodlands, and forests; adaptations of plants and animals to fire; long-term controls on wild fire; use of fire as an ecosystem management tool, with aspects of wildland firefighting; and prescribed burning, including fire behavior, fuels, weather, politics and policy. Hands-on prescribed burning experiences as circumstances and weather permit. Prerequisite: WSES 2405, RNRM 3315, or BIOL 4401.

WSES 4312. Wildlife Translocation. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines the science and practice of wildlife reintroductions and other translocations as tools for species management and conservation. Students will explore the ecological, genetic, and behavioral factors that influence the success of relocating animals, including the challenges of habitat suitability, disease management, and social dynamics. Topics also covered include ethical considerations, regulatory frameworks, and case studies of successful and unsuccessful translocation programs of both game and non-game species. Prerequisite: WSES 2322.

WSES 4313. Vegetation Measurement, Inventory, and Monitoring. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Vegetation sampling, measurement, monitoring, inventory, study design, and quantitative and statistical analysis. Assessment of range condition and forest health based on understanding ecological processes. Hands-on, field-based laboratory. Prerequisite: WSES 3406 or WSES 3408.

WSES 4318. Spatial Ecology and Conservation Modeling. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Applications of Remote Sensing and GIS techniques in natural resources, landscape ecology, and spatial ecology. Contemporary modeling techniques such as species distribution, habitat suitability, and occupancy models in the broader landscape context. Credit will not be awarded for WSES 4318 and WSES 5318. Prerequisite: WSES 2405; GEOG, WSES, ENVS, or EASC 2415.

WSES 4322. Carnivore Ecology and Conservation. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
This course delves into the complex ecological roles of carnivores and the critical conservation strategies necessary to protect them. Students will explore the evolutionary biology, behavior, and ecological interactions of key carnivore species, examining their impact on ecosystems and their significance in maintaining biodiversity. The course will cover topics such as trophic cascades, habitat requirements, human-wildlife interactions, and the challenges posed by habitat loss, climate change, and poaching. Students will engage in case studies of various carnivores, assessing current conservation efforts and policy frameworks. Prerequisite: A grade of C or better in WSES 2322.

WSES 4324. Organic Agriculture. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Organic agriculture will examine a brief history of the industry development, changes in the structure and industry, USDA NOP rules and regulations, and certification to provide a scope of understanding for the course. The majority of the course will focus on the mechanics of crop and vegetable production in an organic system including seed sources, planting considerations, environment, soil fertility, plant nutrition, soil preparation, weed control methods, insect and disease prevention, rules in applications, harvest issues, and marketing.

WSES 4325. Crop Production and Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Current concepts and practices in field crop production with emphasis on the applications of technology. Recognition and discussion of cultural practices, fertilization, irrigation, weed and pest control from economic and environmental perspectives. Review of crop improvement strategies and bio-engineering. Prerequisites: SOIL 3301, SOIL 3101, AGRI 1307, and AGRI 1107.

WSES 4326. Big Game Ecology and Management. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Survey of the distributions and life histories of North American big game species. Detailed examination of the biology and habitat relationships of several big game species, especially as they relate to management. Other topics include population dynamics, diet, economic significance, and conservation strategies. Modest cost of field trips will be borne by the student. Prerequisite: A grade of C or better in WSES 2322, or approval of the instructor.

WSES 4327. Avian Ecology and Management. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
A study of major wild bird groups, their interactions with their environment, and how these interactions can be manipulated to achieve management objectives. Course emphasis will be on species of conservation significance, including game, nongame, and vulnerable species. Major topics will include population management of migratory and non-migratory birds, habitat management, and wildlife policy consideration unique to bird conservation. Modest cost of field trips will be borne by the student. Prerequisite: A grade of C or better in WSES 2322, or approval of the instructor.

WSES 4328. Reptile and Amphibian Ecology and Conservation. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
This course provides an in-depth exploration of the ecology, behavior, and conservation of reptiles and amphibians. Students will study the biology, natural history, and ecological roles of the groups, with a focus on understanding the complex relationships they have with their environments. Key topics will include species identification, habitat requirements, reproduction, thermoregulation, and predator-prey dynamics. The course will also address threats these groups face, including habitat loss, climate change, disease, and invasive species, and will examine current conservation strategies and management practices. Prerequisite: A grade of C or better in WSES 2322.

WSES 4335. Food and Culture. 3 Credit Hours (Lecture: 2 Hours, Lab: 3 Hours).
A study of the food beliefs and practices of the major ethnic and religious groups in the U. S. and the nutritional implications of these food practices, a cultural analysis of American food trends; ethnic issues and dietary changes; and research methods in food habits. Lab fee: $25.

WSES 4340. Field Camp. 3 Credit Hours (Lecture: 0 Hours, Lab: 6 Hours).
A field course during which students learn a variety of skills necessary for a career as a wildlife biologist, fisheries biologist, range scientist, or other natural resource professional. Camp will be conducted away from the Tarleton campus, under primitive living conditions and adverse weather conditions. Camp will be scheduled M-F for two consecutive weeks and students will live at the camp location for the duration of the course. Students may be assessed a program fee to cover cost of meals. Prerequisite: Permission of the instructor.

WSES 4341. Southern African Ecology and Culture. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Ecology of southern Africa, including climate, soils, vegetation, and wildlife. Ecological interactions with development, agriculture, and tourism. Identification and ecology of bird and large mammal species. Conservation of rare, threatened, and endangered species. Culture, politics, and history from the pre-Colonial Period through today, with emphasis on their effects on management of natural resources. Focuses mainly on South Africa, Botswana, Zambia, and Namibia.

WSES 4342. Study Abroad. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Conducted at various domestic and international locations for extended periods (frequently outside the United States). Hands-on activities and experiences in agriculture and natural resources. Topics will vary. Enrollment requires a significant study abroad program fee.

WSES 4344. International Natural Resources Issues. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Exploration of the environmental, political, social, and economic factors affecting the use, management, and protection of natural resources worldwide. Impacts of colonization, migration, international development, globalization, energy use, tourism, climate change, and various political systems on natural resource use and management will be analyzed and debated.

WSES 4345. Cross-Cultural Natural Resource Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Designed to expand the student's understanding of natural resource management in cross-cultural settings. Prepare students in social science, agricultural, environmental, or wildlife management for careers or assignments in and outside the USA that require multi-cultural understanding. Facilitate the student's adaptation of management skills and knowledge in diverse natural, legal and cultural settings. Content and assignments are flexible so the student can focus on the natural resource and culture of greatest interest.

WSES 4401. Ethology. 4 Credit Hours (Lecture: 3 Hours, Lab: 4 Hours).
An introductory course in the behavior of animals, with emphasis on the natural selection, ontogeny, and function of behaviors as they relate to feeding, reproduction, predator-avoidance, and other traits. Both proximate (sensory, hormonal, genetic) and ultimate (ecological and evolutionary) mechanisms are addressed. Prerequisite: BIOL 1406 and BIOL 1407; WSES 2322 or AGRI 1419 or ANSC 1319 and ANSC 1119. Lab fee: $2.

WSES 4407. Fermentation and Brewing. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
This course provides a basic understanding of the history of food safety, sanitation, fermentation, fermented foods, beer brewing, wine and cheese making, along with an introduction to industry organization; from commodities production, to processing, distribution, marketing, and sales. The course provides direct hands-on instruction in small-scale brewing. It combines elements of science (chemistry, biology, and physics), economics, food preparation, aesthetics, preferences, and taste. Modest cost of field trips will be borne by the student. Prerequisites: Senior classification and completion of 8 hours of BIOL and 8 hours of CHEM; or approval of the instructor. Must be 21 years of age or older on the first class day to enroll in this course.

WSES 4408. Sustainable Food Systems. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
This course will survey issues surrounding food production and examine the environmental and social impact of current food production systems. Specific emphasis will be placed on emerging trends to increase the sustainability of food production, distribution, and consumption. This course includes a laboratory field component and will require some field work outside normal class times. Lab fee: $2.

WSES 4410. Genomics. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
An exploration of practical applications for high throughput DNA sequencing technology. Hands-on research projects will provide experience in proper sample collection and preparation, automated robotic DNA library preparation, DNA barcoding, quality control metrics, instrument loading and run initiation, and an overview of data processing for a single instrument run generating hundreds of millions of DNA sequences. Prerequisite: BIOL 3303 or AGRI 3409 Lab fee: $2.

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Welcome to the Dr. Sam Pack College of Business (DSPCOB) at Tarleton State University! As an AACSB-accredited institution, we are committed to delivering high-quality business education that meets global standards of excellence. Our comprehensive range of graduate and undergraduate programs equips students with the knowledge and skills needed to thrive in today's competitive business landscape. Notably, we offer unique AACSB-accredited programs such as the BAAS in IT, BAAS in Business, and BS in Applied Science with a Business concentration, designed to support a variety of academic and professional goals. Join us on a transformative academic journey defined by innovation, excellence, and accreditation.

Mission Statement

The Dr. Sam Pack College of Business empowers all learners with the knowledge, skills, and ethical principles to thrive in the global economy. Through faculty and student interactions we prepare leaders who positively impact organizations, foster economic growth, and contribute to their communities.

Vision

To develop innovative, principled, and globally minded business leaders who succeed in a wide range of business environments. To provide a dynamic learning environment that includes practical experience, scholarship, and skills to prepare individuals for real-world challenges.

Values [1]

- **Collaboration:** The value of collaboration refers to respect, support network, mentorship, teamwork, service, and involvement. It signifies a focus on considering and meeting the needs and interests of various stakeholders, including students, faculty, staff, and the wider community.
- **Leadership:** The value of leadership includes integrity, courage, vision, innovation, and objective decision-making. It reflects an aspiration to develop and equip individuals as effective leaders who positively impact the business world and beyond.
- **Diligence and Persistence:** We encourage our students to approach challenges with determination and unwavering persistence. Through hard work and dedication, they learn that overcoming obstacles is not just a part of the journey but a critical component of personal and professional growth.

1. Aligns with United Nations (U.N.) Sustainable Development (https://sdgs.un.org/goals/) goals 4: Quality Education; 8: Decent Work and Economic Environment; and 9: Industry, Innovation, & Infrastructure.

Degree and Programs

The DSPCOB academic program is organized into the following departments:

- Department of Accounting, Finance, and Economics (p. 179)
  - BBA in Accounting
  - BS in Economics
  - BBA in Finance
- Department of Management (p. 187)
  - BS in Applied Science
  - BAAS in Business
  - BBA in General Business
  - BBA in Human Resources Management
  - BBA in International Business
  - BBA in Management
- Department of Marketing and Computer Information Systems (p. 196)
  - BBA in Marketing
  - BBA in Management Information Systems
  - BS in Computer Information Systems
  - BAAS in Information Technology

Accreditation

Tarleton State University's College of Business boasts full accreditation from AACSB, the leading accrediting body for business colleges worldwide. This prestigious recognition is granted to less than 6% of the global colleges of business. It's noteworthy that the entire university holds regional accreditation from SACSCOC, underscoring the institution's commitment to meeting high academic standards across all its academic disciplines.

- The Association to Advance Collegiate Schools of Business (AACSB) (https://www.aacsb.edu/accredited/t/tarleton-state-university/)
- Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) (https://sacscoc.org/institutions/?institution_name=Tarleton+State+University&results_per_page=25&curpage=1&institution=0011N00001h9EC0QAM)

General Requirements of the BBA/BS/BAAS Degrees

Please consult the section on Requirements for a Baccalaureate Degree (https://catalog.tarleton.edu/registrar/) for general information on general education requirements and other requirements for Tarleton's undergraduate degree programs. All course work within College of Business (COB) baccalaureate programs can be placed into one of four categories:

1. **University Core Requirements** - Courses required of all baccalaureate degree programs throughout the university.
2. **Common Business Core** - A set of courses aimed at building a common core of business knowledge in business students. The depth of business knowledge may differ by degree type (e.g., BAAS, BBA, BS, or BSAS), and even somewhat by major.
3. **Major Specific Courses** - A set of courses which build competencies unique to the discipline described by the major.
4. **Electives** - A set of courses filling an interest of the student.

All courses categorized as either **Common Business Core** or **Major Specific Courses** must be passed with a C or better for them to count toward the degree, or to be used as a listed prerequisite in the baccalaureate program. In addition, learners must maintain a grade point average (GPA) of 2.00 or better for all upper-level work counted toward their degree.

BBA Common Business Core

Most of the baccalaureate degree programs are categorized as a Bachelor of Business Administration (BBA) degree. The following courses are the basis of the **BBA Common Business Core** (although some programs are more restrictive with their optional courses - consult individual programs for details). Each of these courses must be passed with a C or better to count toward a BBA degree and/or to serve as a prerequisite for another course within the BBA degree.

BCIS 1305	Business Computer Applications	3
BUSI 1301	Business Principles	3
Select one of the following:		3-4
MATH 1316	Plane Trigonometry	
MATH 1324	Math for Business & Social Sciences I (Finite Mathematics) [1]	
MATH 1325	Math for Business & Social Sciences II (Business Calculus)	
MATH 2412	Precalculus Math [1]	
MATH 2413	Calculus I [1]	
ACCT 2301	Principles of Accounting I-Financial	3
ACCT 2302	Principles of Accounting II-Managerial	3
BUSI 2301	Business Law I	3
BUSI 2305	Business Statistics	3

ECON 2301	Principles of Macroeconomics [1]	3
ECON 2302	Principles of Microeconomics	3
BUSI 3312 [WI (p. 396)]	Business Communication	3
FINC 3301	Principles of Financial Management	3
MGMT 3300	Principles of Management	3
MKTG 3312	Marketing	3
BCIS 4350	Management Information Systems	3
One of the following as determined by discipline:		3
BCIS 4355	Global Information Systems	
BUSI 4344	Introduction to International Business	
ECON 4301	International Economics	
FINC 4301	International Financial Management	
BUSI 4359 [WI (p. 396)]	Business Strategy	3
Total Hours		**48-49**

[1] A learner who counts this course toward university general education requirements must complete an additional 3 hours of electives.

Other Information

- **Academic Appeals Process**: Tarleton's Dr. Sam Pack College of Business adheres to the university's policies on academic appeals. Students experiencing academic grievances should consult the **Satisfactory Academic Performance** section on the Student Services and Resources (https://www.tarleton.edu/cob/student-services-and-resources/) page. This resource provides clear guidance on the steps for addressing and resolving academic concerns. For further assistance, students are encouraged to contact the appropriate university support services.
- **Netiquette (https://www.tarleton.edu/cob/netiquette/):** Learners are expected to communicate respectfully, respond promptly, and actively participate in discussions and group activities to ensure a collaborative and effective learning environment.
- **Minimum Technology Requirements (https://www.tarleton.edu/cob/minimum-technology-requirements/):** Students enrolled in programs within Tarleton's AACSB-accredited Dr. Sam Pack College of Business must meet minimum technology requirements to ensure seamless access to course materials and online learning activities. Requirements include a reliable computer, high-speed internet connection, and standard productivity software such as Microsoft Office. Additional recommendations may include specific software or tools relevant to the program, as outlined in advising guides or course syllabi. For further assistance, students can access university technical support services.
- **Computer Skills and Digital Information Literacy Skills (https://www.tarleton.edu/cob/computer-skills-and-digital-information/):** To succeed in your courses course, students should possess essential skills such as time management, critical thinking, effective communication, and basic technical proficiency relevant to the course content.
- **Vendor Privacy Statements (https://www.tarleton.edu/cob/vendor-privacy-statements/):** Students are encouraged to review the privacy policies of tools used in your courses to understand how their data is managed. Use of these tools implies agreement with their terms.
- **Technical Support (https://www.tarleton.edu/cob/technical-support/):** For technical support with tools used in your courses, refer to the vendor support resources provided for troubleshooting and assistance. These resources offer guidance to resolve common issues effectively.
- **Accessibility Support (https://www.tarleton.edu/cob/accessibility-support/):** For accessibility support services related to tools used in your courses, visit the vendor accessibility pages provided to ensure inclusive and equitable access. These resources address common accessibility concerns and offer assistance.
- **Academic Support Services (https://www.tarleton.edu/cob/academic-support-services/):** Tarleton's Dr. Sam Pack College of Business offers various academic support services to help students succeed, including orientations for undergraduate and graduate programs, library services, the Math Achievement Center, the Writing Center, and the Tutoring and Learning Center. These resources provide personalized support, from enhancing writing skills to developing effective learning techniques.
- **Student Services and Resources (https://www.tarleton.edu/cob/student-services-and-resources/):** Tarleton's Dr. Sam Pack College of Business offers a wide range of resources to support student success, including academic advising, registration guidance, financial aid assistance, and counseling services. Additional support includes tools for scholarships, veteran services, and career development, with specialized resources like internships and student organizations to enhance professional growth.
- **Vendor Accessibility Statements (https://www.tarleton.edu/cob/vendor-accessibility-statements/):** The Dr. Sam Pack College of Business is committed to providing accessible technology for all students. Accessibility statements for all required technologies used in COB courses, including tools like Canvas, Adobe, Microsoft, Pearson products, and Zoom, are available to ensure equitable access. These statements outline the accessibility features and accommodations provided by each vendor to support an inclusive learning environment.
- **Undergraduate Online Orientation (https://tarleton.instructure.com/courses/19004/):** The Undergraduate Online Orientation introduces new graduate students to the resources, expectations, and academic culture of the Dr. Sam Pack College of Business (DSPCOB). This self-paced program covers key aspects of graduate studies, including navigating the online learning environment, utilizing university services like the library and writing center, and understanding program policies and procedures. Orientation ensures that students feel confident and prepared to succeed in their academic journey.
- **Undergraduate Course Rotations and Advising Guides (https://www.tarleton.edu/majorinfo/):** Undergraduate Course Rotations provide a structured schedule of when specific graduate courses are offered across semesters. This information helps students plan their academic paths efficiently, ensuring they can meet degree requirements within their desired timeline. Rotations typically detail which courses are available in the fall, spring, and summer semesters and indicate whether they are offered online, in-person, or in hybrid formats. Similarly, Advising Guides help provide learners with guidance as they plan out course sequencing for their program.
- **DSPCOB Syllabi (https://tarleton.simplesyllabus.com/en-US/syllabus-library/?organization_id=959fb73a-4c87-429b-b594-b6478f07c5b2):** The DSPCOB Syllabi repository gives students access to detailed course syllabi for all graduate and undergraduate programs within the college. Each syllabus outlines the course objectives, topics covered, grading criteria, required materials, and policies on academic integrity, attendance, and participation. The syllabi serve as a roadmap for academic success, offering clarity on expectations and resources for each course.
  - DSPCOB Syllabi Repository (https://tarleton.sharepoint.com/:f:/s/COBA-CollegeofBusinessAdministration/EmCXrId_dflHuYGPgq8EwJIBdOYJhbXS9ewutrtVFGbR-A/?e=Eom9Kh) (Syllabi prior to the implementation of Simple Syllabus implemented for Spring 2025)

Questions?

Have more questions? Reach out to one of our advisors at DSPCOB Undergraduate Advisors (https://www.tarleton.edu/cob/undergraduate-advising/)!

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Accounting Courses

ACCT 2301. Principles of Accounting I-Financial. 3 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).
This course is an introduction to the fundamental concepts of financial accounting as prescribed by U.S. generally accepted accounting principles (GAAP) as applied to transactions and events that affect business organizations. Students will examine the procedures and systems to accumulate, analyze, measure, and record financial transactions. Students will use recorded financial information to prepare a balance sheet, income statement, statement of cash flows, and statement of shareholders' equity to communicate the business entity's results of operations and financial position to users of financial information who are external to the company. Students will study the nature of assets, liabilities, and owners' equity while learning to use reported financial information for purposes of making decisions about the company. Students will be exposed to International Financial Reporting Standards (IFRS). Prerequisite: MATH 1314, MATH 1332, MATH 1324, MATH 2412, MATH 2413, MATH 1342, or concurrent enrollment, or approval of department head. Lab fee: $2.

ACCT 2302. Principles of Accounting II-Managerial. 3 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).
This course is an introduction to the fundamental concepts of managerial accounting appropriate for all organizations. Students will study information from the entity's accounting system relevant to decisions made by internal managers, as distinguished from information relevant to users who are external to the company. The emphasis is on the identification and assignment of product costs, operational budgeting and planning, cost control, and management decision making. Topics include product costing methodologies, cost behavior, operational and capital budgeting, and performance evaluation. Prerequisite: ACCT 2301. Lab fee: $2.

ACCT 3300. Accounting Concepts. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A survey of basic accounting principles, concepts, and methods to include a review of general purpose financial statements and the accounting process. Financial accounting procedures are presented to support the overall managerial function. This course is provided for students without a previous accounting background. This course is designed to provide non-BBA students with sufficient introductory accounting to prepare them to survive in an introductory finance course. The coverage is not deep enough in either financial or managerial accounting for any recognized Bachelor of Business Administration (BBA) program. The introductory financial accounting (ACCT 2301) and managerial accounting (ACCT 2302) courses are required for all BBA majors anyway, and would better prepare those students for further studies in Finance. Therefore, credit for both ACCT 3300 and ACCT 2301 will not be permitted by the College of Business Administration.

ACCT 3301. Business Analysis using Spreadsheets. 3 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).
Theory and application of microcomputer technology in the practice of accounting and finance. Emphasis on the utilization of basic spreadsheet and general ledger software. Intended to stimulate creative initiative in performing accounting tasks and to develop the basic skills necessary to efficiently and effectively utilize the microcomputer. Credit for both BCIS 3301 and ACCT 3301 will not be awarded. Prerequisite: ACCT 2301 or ACCT 3300 Lab fee: $2.

ACCT 3302. Cost Accounting. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introductory cost course, emphasizing the accounting for material, labor, and manufacturing expenses in both job order and process cost systems. Special attention to distribution of service department cost and costing of byproducts and joint products. Prerequisite: ACCT 2302 or approval of department head.

ACCT 3303. Intermediate Accounting I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course's primary emphasis is on learning the theory and application of generally accepted accounting principles. The environment and groups that have influenced both the development and use of the financial accounting standards are introduced, followed by a study of FASB's conceptual framework. There is a thorough review of the accounting process followed by an in-depth study of the content and form of the financial statements. The time value of money is used for problem solving. The final topics include the recording, valuation, and reporting of cash, receivables, and inventories. Prerequisite: ACCT 2301.

ACCT 3304. Intermediate Accounting II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A continuation of Intermediate Accounting I with continued emphasis on generally accepted accounting principles as applied to the business enterprise. A study of the theory and application of generally accepted accounting principles. Topics include property, plant, and equipment; intangible assets; investments; current liabilities; long term liabilities; leases; stockholder's equity; and earnings per share. Prerequisite: ACCT 3303.

ACCT 3310. Accounting Information Systems. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Specific study of design and implementation of complex accounting information systems. An understanding of the traditional accounting model and its relationship to each type of accounting information system will be emphasized, including accounts receivable, inventory control, cost accounting, operational budgeting, and capital budgeting. Key elements of a well-designed management control system are included. Prerequisite: ACCT 2302 or approval of department head. Lab fee $15.

ACCT 4084. Internship. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 1-20 Hours).
Directed real-world learning experience under the supervision of a practicing professional accountant. The internship assignment must be approved by an accounting internship advisor prior to enrollment. The internship must be related to the student's field of study and requires at least 320 hours of supervised work in total, including at least 160 during the semester term. Student maintains a diary of work experience gained and, at semester-end, prepares a written paper reflecting on the work experience. Student also provides to accounting internship advisor the employer's evaluation of performance and maintains records of all the listed documentation. No credit will be given for previous experience or activities. Prerequisites: Must have completed 90 semester credit hours including a minimum of 12 semester credit hours of upper division accounting course work and have at least a 2.5 GPA overall with at least a 3.0 GPA in accounting courses.

ACCT 4086. Problems. 1-3 Credit Hours (Lecture: 0 Hours, Lab: 1-3 Hours).
A directed study of selected problems in accounting. May be repeated with approval of department head. Prerequisites: Approval of department head.

ACCT 4090. Special Topics in Accounting. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 1-3 Hours).
An examination of current topics in accounting. Readings required from current accounting publications and other related periodicals. May be repeated for credit when topics vary. Prerequisites: 9 hours in ACCT.

ACCT 4301. Financial Accounting. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is a part of and a continuation of the Intermediate Accounting sequence. It extends and builds directly on what students have learned in ACCT 3303 and 3304. Topics may include: accounting for pensions; accounting for income taxes in a corporation's financial reporting; changes in accounting principles and correction of errors; preparation of statement of cash flows. This course is intended to qualify for recognition by the Texas State Board of Public Accountancy as one semester hour in accounting research and analysis (reflecting the dedication of one semester hour to research and analysis). Accordingly, this course addresses the identification, organization, and integration of diverse sources of information to reach a conclusion or make a decision; and should analyze accounting and taxation issues by reviewing information, using empirical data and analytical methods, recognizing data in patterned activities, forecasting, and integrating data. Prerequisite: ACCT 3304 or concurrent enrollment Lab fee: $2.

ACCT 4303. Advanced Financial Accounting & Reporting. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An intensive study of theory and practices related to advanced financial accounting topics pertaining to partnerships, joint ventures, consignments, installment sales, insolvent (bankruptcy) concerns, and business combinations. Significant coverage of consolidated financial statements is provided in this course. The course covers foreign currency translation, hedge accounting and International Accounting Principles. This course includes a research component. Prerequisite: ACCT 4301 or concurrent registration.

ACCT 4305. Federal Tax Accounting. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The present income tax law and regulations; income tax legislation, treasury and court decisions, departmental rulings; income tax problems and returns, social security, and self-employment taxes. Credit for both ACCT 4305 and 5305 will not be awarded. Prerequisites: ACCT 2302 or approval of department head.

ACCT 4306. Federal Tax Accounting II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The tax consequences of doing business by corporations, partnerships, and S corporations from creation, to operating, distribution, and dissolution are discussed. Furthermore, the impact of transactions on corporations and shareholders, the partnership and its partners is emphasized throughout the course. Fiduciary relationships are also discussed. Prerequisite: ACCT 4305.

ACCT 4315. Taxation of Gifts and Estates. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is intended to provide students with a general understanding of the fundamental principles of the United States estate and gift tax system. Students will (i) learn basic principles and concepts of estate planning, (ii) learn the theoretical basis of the U.S. approach to estate and gift taxation and (iii) gain detailed knowledge of estate and gift tax issues. In addition, the course will prepare students to anticipate, recognize, and manage various issues that arise in the transfer tax system. Prerequisite: ACCT 2302.

ACCT 4323. Ethics for Professional Accountants. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Explores ways for an accountant to integrate ethical behavior into professional life. Includes a study of ethical behavior and decision-making. Also examines of various professional accountancy codes of conduct with an emphasis on ethical reasoning, integrity, objectivity, independence, and ethical lapses. Prerequisite: ACCT 3304 or concurrent enrollment.

ACCT 4324. Auditing Evidence and Report. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Procedures used by auditors and accounting practitioners to gather and evaluate information and report on their findings. Includes evaluation of internal control, planning an audit or other engagement, compliance testing, substantive testing, statistical sampling, evaluation of findings, and preparation of reports. Credit for both ACCT 4324 and ACCT 5324 will not be permitted by the College of Business Administration (the topics covered in these two courses are equivalent from a Texas State Board of Public Accounting standpoint). Prerequisite: ACCT 3304 or equivalent.

ACCT 4325. Fraud Examination. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will cover the current impact of fraud in the workplace, types of fraud schemes, how to prevent fraud in the workplace; how fraud is detected and investigated, and legal aspects of fraud. Prerequisite: ACCT 2302 or 3300.

ACCT 4352. Construction Cost Control. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides an in-depth study of accounting principles and practices specific to the construction industry. Students will learn how to apply accounting concepts and techniques to construction projects, including cost estimation, budgeting, financial reporting, and project analysis. Emphasis will be placed on understanding the unique challenges and requirements of construction accounting, as well as the role of accounting in project management. NOTE: Students may not receive credit for both this course and ACCT 3300. Also, students may not receive credit for both this course and ACCT 2302. This course does NOT count as an upper-level accounting course for purposes of the CPA designation. Prerequisite: CNST 3323; MATH 1352; MATH 1342; for CNST majors only.

ACCT 4385. Seminar. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of current issues and developments in accounting. Prerequisite: Approval of department head.

Administration Courses

ADMS 1305. Intermediate Keyboarding. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Students will master the alpha-numeric computer keyboard by touch, with attention to accuracy and the correct formatting of business documents such as letters, memorandums, formal reports, forms, and other business correspondence. Prerequisite: Beginning typewriting in high school or college.

Business Courses

BUSI 1000. TCC Dual Admit. 0 Credit Hours (Lecture: 0 Hours, Lab: 0 Hours).

BUSI 1301. Business Principles. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides a survey of economic systems, forms of business ownership, and considerations for running a business. Students will learn various aspects of business, management, and leadership functions; organizational considerations; and decision-making processes. Financial topics are introduced, including accounting, money and banking, and securities markets. Also included are discussions of business challenges in the legal and regulatory environment, business ethics, social responsibility, and international business. Emphasized is the dynamic role of business in everyday life.

BUSI 1307. Personal Finance. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Personal and family accounts, budgets and budgetary control, bank accounts, charge accounts, borrowing, investing, insurance, standards of living, renting or home ownership, and wills and trust plans.

BUSI 2301. Business Law I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of the principles of law relating to law and ethics, the judicial system, constitution, tort and criminal law, law of sales, and commercial property.

BUSI 2305. Business Statistics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Descriptive and inferential statistical techniques for business and economic decision-making. Topics include the collection, description, analysis, and summarization of data; probability; discrete and continuous random variables; the binomial and normal distributions; sampling distributions; tests of hypotheses; estimation and confidence intervals; linear regression; and correlation analysis. Statistical software is used to analyze data throughout the course. Prerequisites: MATH 1324 Mathematics for Business & Social Sciences or MATH 1314 College Algebra and BCIS 1305 Business Computer Applications.

BUSI 3312. Business Communication. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
A study of effective communication, both verbal and written. Provides students the opportunity to gain practice in making decisions involving selection and organization of communication content, in choosing appropriate medium for presentation of information and developing effective business writing styles.

BUSI 4084. Internship. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 1-20 Hours).
Preapproved and supervised work experience in a business related position with a public or private business organization. May be repeated for a total of 6 hours credit. Prerequisite: Approval of Instructor and Department Head.

BUSI 4086. Business Problems. 1-3 Credit Hours (Lecture: 0 Hours, Lab: 1-3 Hours).
A directed study of selected problems in business. May be repeated with approval of the head of the Department. Prerequisites: Approval of Instructor and Department Head.

BUSI 4090. Special Topics in Business. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 1-3 Hours).
An examination of current topics in general business. Readings required from current general business publications and other related periodicals. May be repeated for credit when topics vary. Prerequisite: Approval of Instructor and Department Head.

BUSI 4314. Administrative Office Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Principles of office management, including planning, organizing, staffing, directing, and controlling are examined. Emphasis is placed on human relations, problem solving, leadership, and improved managerial performance, office procedures, talent requirements, and equipment needs.

BUSI 4344. Introduction to International Business. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Broad coverage of key concepts and issues in international business. Emphasis on the environment of international business and the operations of the multinational firm.

BUSI 4359. Business Strategy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
A capstone course involving the integration of concepts and principles studied in accounting, economics, finance, management, marketing, quantitative methods, and other relevant disciplines. Includes problem solving and business decision making. Designed to be taken by senior business majors during their last semester. Prerequisite: FINC 3301, BUSI 2305, MGMT 3300, MKTG 3312; or approval of department head.

BUSI 4385. Seminar in General Business. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of selected topics dealing with problems or unique needs of business. May be repeated for credit as topics vary. Prerequisite: Approval of Instructor and Department Head.

BUSI 4389. Global Business Practices. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of basic international business concepts, cultural literacy, and discipline specific content are then applied to practical experiences and activities related to the foreign country visited. A required study abroad at the student's expense is required. Student may complete a maximum of six hours of COBA sponsored study abroad toward degree completion. Field assignment fee of $50.

BUSI 4398. Professional Development in Applied Business. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A capstone course designed for students to synthesize the knowledge, skills, and attitude learned throughout the undergraduate applied business degree. Students will demonstrate their ability to articulate career pathways, contribute to the organizational structure of business/industry or other institutions, and examine strategies needed to make difficult decisions. Work may include individual/group research and critical reviews of existing bodies of knowledge.

Business Administration Courses

Business Analytics Courses

Business Computer Information Systems Courses

BCIS 1305. Business Computer Applications. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduces and develops foundational skills in applying essential and emerging business productivity information technology tools. The focus of this course is on business productivity software applications, including word processing, spreadsheets, databases, presentation graphics, data analytics, and business-oriented utilization of the internet.

BCIS 1317. Personal Computer Maintenance and Hardware. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An enhanced study of technology and hardware operation of microcomputers, their peripherals, and operating systems. Also considered are hardware configuration and selection, installation, test procedures, and maintenance.

BCIS 3302. Database and Data Management for Small Businesses. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Studies relational database packages. In addition, students improve their knowledge and skill with a current personal computer operating system.

BCIS 3315. Web Development. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Students will explore the underlying technical foundations of web design and programming. Emphasis will be placed on HTML and CSS coding as well as principles of client side scripting languages such as Javascript.

BCIS 3332. Java Programming. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A first course in the Java programming language. Covers the basic structure of Java, all standard features, data representation, and simple I/O. Students will analyze and program several representative programs.

BCIS 3333. C# Programming. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A first course in the C# programming language. Covers the basic structure of C#, all standard features, data representation, and simple I/O. Students will analyze and program several representative problems.

BCIS 3334. Programming for Business I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A first course in programming with a business focus. Covers the basic structures of programming, all standard features, data representation, and simple I/O. Students will analyze and develop programs relevant to business applications.

BCIS 3342. Advanced Java Programming. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An advanced course in the Java programming language. Covers advanced Java capabilities such as class features, error handling, graphical user interfaces, applets, and advanced object-oriented programming techniques. Students will analyze and program several representative problems. Prerequisite: BCIS 3332 or BCIS 3333 or approval of department head.

BCIS 3343. Advanced C# Programming. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Advanced programming using the C# programming language to create Windows applications in an Internet and intra-network environment. Explores object-oriented design, client-server interaction, event-driven programming, graphical user interfaces, distributed data, and distributed applications. Prerequisite: BCIS 3332 or BCIS 3333 or approval of department head.

BCIS 3344. Programming for Business II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A second course in programming with a business focus. Expands on foundational programming concepts with advanced paradigms, modular design, and domain-specific tools. Covers object-oriented and functional programming, design patterns, and emerging business technologies. Students will design, implement, and analyze complex software solutions for business needs. Prerequisite: BCIS 3334 or BCIS 3332 or BCIS 3333.

BCIS 3347. Data Communications. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of voice and data communications technologies, concepts, and applications, including communications terminology, hardware, software, protocols, and managerial issues in data and voice communications. Topics will include alternatives available in hardware, software, and transmission facilities, design integration, selection and implementation of communications solutions. In addition, students will explore the current and future impact and direction of these technologies.

BCIS 3389. System Analysis and Design. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
A study of the systematic analysis, design, and implementation of software systems with special emphasis on the processes and skills used in the first four stages of the System Development Life Cycle. Traditional and current methodologies, including computer aided analysis and design tools will be considered. Topics will be approached through project-oriented cases and projects, which integrate theory and practical application. Prerequisite: BCIS 3332 or BCIS 3333 or BCIS 3334.

BCIS 4084. Internship. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 1-20 Hours).
Preapproved and supervised work experience in a Computer Information Systems related position with a public or private business organization. May be repeated for a total of 6 hours credit. Prerequisite: Approval of department head.

BCIS 4086. Problems. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 0-0 Hours).
Selected individual topics in business on technical computer applications, practicum, field project, or other suitable computer studies. May be repeated for a maximum of 6 semester hours credit. Prerequisites: Approval of instructor and department head.

BCIS 4090. Special Topics in Computer Information Systems. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 0-0 Hours).
An examination of current topics in computer information systems. Readings required from current computer information systems publications and other related periodicals. May be repeated for credit when topics vary. Prerequisite: 9 hours in BCIS.

BCIS 4301. Database Theory and Practice. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Database concepts and structures. File and data management principles underlying database construction. Fundamental types of database models, with emphasis on relational databases as well as on major non-relational forms. Practice in analysis, design, development, and optimization of working database applications on a variety of problems. Small and large system databases will be considered. Prerequisite: BCIS 3332 or BCIS 3333 or BCIS 3334 or COSC 3360.

BCIS 4308. Advanced Programming Language. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Develops the programming proficiency in a modern programming language. Students complete many programming assignments to achieve necessary knowledge and skills. May be repeated as topics vary. Prerequisite Approval of instructor or department head. Prerequisite: Approval of instructor or department head.

BCIS 4315. Interactive and Applied Multimedia. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An exploration of multimedia tools and their relationships to various disciplines of study. A review of the principles of multimedia and the effective uses of multimedia will be conducted. The production and design of multimedia systems will culminate the course of study.

BCIS 4316. Managing IT Projects. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course explores the fundamentals of managing IT projects based on the Project Management Body of Knowledge developed by the Project Management Institute. Specifically, the course will focus on exploring the knowledge, skills, tools, and techniques used by an IT project manager to manage multiple project constraints with special emphasis on the triple constraints of scope, time, and costs. Prerequisite: BCIS 1305 and BCIS 3389.

BCIS 4320. Computer Forensics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will examine the principles and practice of conducting computer forensics investigations for both criminal and business application. Students will apply investigative methods to properly conduct a computer forensics investigation beginning with a discussion of ethics. Students will examine and use various technologies, software and procedures applicable to forensic investigation. The course will also cover the legal responsibilities and key evidentiary procedures necessary to conduct the computer forensics process. Students should have a working knowledge of hardware and operating systems to maximize their success on projects and exercises in this course. Prerequisite: Junior Standing or the approval of the instructor or department head.

BCIS 4342. Ethical Hacking & Network Defense. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduces intrusion security testing as a method for improving network defense to computer users with a solid grounding in computer and networking basics. Students will learn how to identify network security vulnerabilities by employing the techniques and software normally used by hackers to compromise networks. Students will then learn the process of determining the best practices in how to secure those vulnerabilities. Topics will include the mission and limitations of security and penetration testers along with the legal ramifications and restrictions involved. Students will be study the various methods of hackers, operating systems threats for Windows and UNIX based systems, cryptography, and modern network protection systems. Prerequisite: Junior standing or approval of instructor or department head.

BCIS 4345. Network and Systems Security. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Studies the issues of Network and Systems Security as a continuous process involving analysis, implementation, evaluation and maintenance. Topics will include addressing computer-related risks, case analysis, and future trends. The course will provide approaches, techniques, and best practices for securing modern electronic data systems. Areas covered include electronic information and message security, database and file integrity, physical security, security management, security risk analysis, and encryption. Prerequisite: BCIS 3347 or approval of department head.

BCIS 4347. Advanced Database Systems. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Studies the theory and practice in the analysis, design, development, implementation, and optimization of working database applications on a variety of problems focusing on topics such as database administration. Prerequisite: BCIS 4301 or approval of instructor or department head.

BCIS 4350. Management Information Systems. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course investigates management issues related to business information systems designed to meet the informational needs of the various business subsystems. The concepts of systems development, security, privacy and ethics associated with information systems are stressed. Prerequisite: BCIS 1305.

BCIS 4352. Structured Query Language. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of SQL, including relational database schema in SQL, formulating SQL queries and sub queries of varying complexity, embedding SQL statements in a host language, defining and querying data views in SQL, and other related topics. Prerequisite: BCIS 4301 or approval of instructor or department head.

BCIS 4355. Global Information Systems. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the international issues surrounding the planning, implementation, and management of global information systems. Topics covered include development and planning of offshoring programs, cultural aspects of information systems development and deployment and legal issues of global information systems. Prerequisite: Junior Standing.

BCIS 4376. Network Administration. 3 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
Studies communications architectures, protocols, and interfaces as they relate to network operating systems. Topics will include communications networking techniques such as circuit switching, packet switching, broadcast networking and internetworking. Also included will be installation, configuration, client handling, basic security, and troubleshooting of a network operating system. A modern network operating system will be used to provide extensive hands-on experience in configuring and administrating a network. Prerequisite: BCIS 3347 or approval of instructor or department head Lab fee: $2.

BCIS 4379. The Technology of E-Business. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines the linkage of organizational strategy and electronic methods of delivering products, services and exchanges in inter-organizational, national, and global environments. Information technology strategy and technological solutions for enabling effective business processes within and between organizations in a global environment are considered.

BCIS 4385. Professional Development Seminar. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Professional-level enrichment for CIS majors with activities which may include participation in professional organizations, current events, research and presentations, job market analysis, interviewing and resume preparation. Prerequisite: 24 hours of BCIS/CIS courses or approval of department head.

Business Law Courses

BLAW 4084. Internship. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 1-20 Hours).
Preapproved and supervised work experience in a business law related position with a public or private business organization. May be repeated for a total of 6 hours credit. Prerequisite: Approval of department head.

BLAW 4086. Problems. 1-3 Credit Hours (Lecture: 0 Hours, Lab: 1-3 Hours).
A directed study of selected problems in business law. May be repeated with approval of the head of the Department. Prerequisite: Approval of department head.

BLAW 4090. Special Topics in Business Law. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 1-3 Hours).
An examination of current topics in business law. Readings required from current business law publications and other related periodicals. May be repeated for credit when topics vary. Prerequisite: 9 hours in BLAW.

BLAW 4333. Business Law II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of the principles of law concerning agency, employment, partnerships, corporations, bankruptcy, secured transactions, creditor/debtor rights, insurance, real and personal property, laws impacting the regulatory environment of business such as consumer protection, environment, anti-trust, and securities law.

BLAW 4334. Employment Law. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the laws relating to employment. Includes defining the employer-employee relationship; regulation of discriminatory practices in employment (Title VII, the 1964 Civil Rights Act, and other statutes); regulation of the employment environment; and testing and evaluation of employee job performance.

BLAW 4384. International Business Law. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of international commercial business and the legal environment within which it operates. The study of traditional international concepts of treaties, sovereignty, public and private laws, customs laws, licensing, franchising, environmental and employment law. Special emphasis on contracts for international sale of goods (CISG), GATT and WTO Treaties, NAFTA, regional trade areas. Credit for both BLAW 4384 and BLAW 5384 will not be awarded.

BLAW 4385. Seminar in Business Law. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of selected topics dealing with problems or unique needs of business law. May be repeated for credit as topics vary. Prerequisite: Approval from department head.

Economics Courses

ECON 1301. Introduction To Economics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is a survey of microeconomic and macroeconomic principles for non-business majors. In this course, students are encouraged to use their common sense to understand economic principles and applications. Microeconomic topics will include supply and demand, consumer behavior, price and output decisions by firms under various market structures, factor markets, market failures, international trade, and exchange rates. Macroeconomic topics will include national income, unemployment, inflation, business cycles, aggregate supply and demand, monetary and fiscal policy, and economic growth.

ECON 2301. Principles of Macroeconomics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course focuses on the aggregate or overall economy. Topics include the measurement and determination of economic aggregates such as Aggregate Demand and Aggregate Supply, national income, inflation, and unemployment. Other topics include international trade, economic growth, business cycle, fiscal policy, and monetary policy. Prerequisites: MATH 1314, MATH 1332, MATH 1324, MATH 2412, MATH 2413, MATH 1342, or concurrent enrollment, or approval of department head.

ECON 2302. Principles of Microeconomics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Analyzes the behavior of individual economic agents, including consumer behavior and demand, producer behavior and supply, and price and output decisions by firms under various market structures. Other topics include an in-depth study of resource factor markets, market failure, and international trade. Prerequisite: MATH 1314, MATH 1332, MATH 1324, MATH 2412, MATH 2413, MATH 1342, or concurrent enrollment, or approval of department head.

ECON 3301. Intermediate Macroeconomics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course extends the study of the aggregate economy introduced in Economics 2301 with emphasis on theory. Topics include the Classical and Keynesian systems, general equilibrium theories, economic growth, and public policy in a global setting. Prerequisite: ECON 2301.

ECON 3302. Intermediate Microeconomics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course represents a more advanced study of microeconomic theory than is possible in Economics 2302. Topics include consumer behavior, production and cost theory, market structure, and factor markets. Prerequisite: ECON 2302, or AGEC/AGRI 2317 or equivalent.

ECON 3303. Money And Banking. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the structure and functions of financial markets and financial intermediaries; the behavior and pattern of interest rates; the basic concepts of commercial bank management; the nature of money and the role of the Federal Reserve in its creation; the basic structure of the economy and the impact of monetary actions on this structure. Prerequisite: ECON 2301.

ECON 3304. Environmental Economics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of the economics of the natural environment. Economic tools and issues such as social cost, externalities, cost-benefit analysis, property rights, and state and federal environmental policies will be examined with emphasis on problems associated with water pollution, waste disposal, and society's burden of social costs. Prerequisite: 3 hours ECON or AGRI/AGEC 2317.

ECON 3305. Economics of Financial Markets. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the aggregate financial system and capital markets and the impact these have on financial intermediaries. Topics to be covered are: flow of funds analysis, interest rate theory, role of financial intermediaries, and management of financial assets. Credit for both FINC 3304 and ECON 3305 will not be awarded. Prerequisites: ECON 2301.

ECON 3306. Political Economy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the historical, philosophical, and theoretical relationships between the state and the economy. Credit for both POLS 3306 and ECON 3306 will not be awarded. Prerequisite: 3 hours of ECON.

ECON 4084. Internship. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 1-20 Hours).
Preapproved and supervised work experience in a Economics related position with a public or private business organization. May be repeated for a total of 6 hours credit. Prerequisite: Approval of department head.

ECON 4086. Problems. 1-3 Credit Hours (Lecture: 0 Hours, Lab: 1-3 Hours).
Independent reading, research and discussion. Entry into this course will be arranged with the Economics counselor. Prerequisites: Approval of department head.

ECON 4090. Special Topics in Economics. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 1-3 Hours).
An examination of current topics in economics. Readings required from current economics publications and other related periodicals. May be repeated for credit when topics vary. Prerequisite: Approval of department head.

ECON 4301. International Economics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introduction to international economic theory and policy, the foundations of modern trade theory and its extensions, welfare effects of tariffs and non-tariff barriers, commercial policies of the United States, trade policies of developing countries, multinationals, balance of payments, and foreign exchange markets. Credit for both ECON 4301 and AGEC 4302 will not be awarded. Prerequisite: 3 hours ECON or AGEC/AGRI 2317.

ECON 4302. Developmental Economics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introduction to theories of economic development. Much of the course focuses on the sources of economic growth, inequality, and poverty, and what “development” means beyond financial growth. Other topics include population growth, migration, human capital, agriculture, the environment, international trade and finance, and good governance. The twin concepts of market failure and government failure are seen throughout the course Prerequisite: Six hours of economics.

ECON 4311. Econometrics and Forecasting. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
Econometrics is the science of using statistics to estimate economic relationships, test theories, and evaluate the impacts of government and business policies. Econometrics is also used to forecast or predict how economic variables, stock prices, and other time-varying economic indicators behave. It is used not only in economics, but in fields as diverse as finance, marketing, political science, sociology, biology, and even comparative literature. This course is data-driven as students apply what they have learned in other courses to specific, testable research questions. Credit will not be granted for both ECON 4311 and Econ 5311. Prerequisites: ECON 2301, ECON 2302, and one of the following: BUSI 2305, MATH 3311, AGEC 3317, or MATH 1342.

ECON 4320. Health Care Economics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is intended to provide important background information surrounding the health care reform debate and address a spectrum of economic and policy issues impacting the health care industry. A basic overview of the health care industry emphasizing the economic issues affecting medical care delivery and finance is provided. The demand side and the supply side of the health care market are studied with the ultimate focus on the use of the technical tools of economics to address public policy issues. Emphasis is placed on the changing nature of health care and its implications for medical and health industry. Prerequisite: ECON 1301, 2301, OR 2302.

ECON 4385. Seminar in Economics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of selected topics dealing with problems or unique needs of Economics. May be repeated for credit as topics vary. Prerequisite: Approval from department head.

Finance Courses

FINC 3301. Principles of Financial Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An analysis of financial decision-making at the corporate level with emphasis on the maximization of stockholder wealth. Topics covered include financial statement analysis, the valuation of stocks and bonds, cost of capital, capital budgeting, leverage and capital structure, methods of firm valuation, and financial analysis using spreadsheets. Prerequisites: ACCT 2301, ACCT 2302 and ECON 2301; or ACCT 3300 and ECON 2301.

FINC 3302. Financial Intermediaries. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the internal operations of financial intermediaries with major emphasis on organization, source and allocation of funds, supervision, and regulation. Prerequisite: FINC 3301.

FINC 4084. Internship. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 1-20 Hours).
Preapproved and supervised work experience in a Finance related position with a public or private business organization. May be repeated for a total of 6 hours credit. Prerequisite: Approval of department head.

FINC 4086. Problems. 1-3 Credit Hours (Lecture: 0 Hours, Lab: 1-3 Hours).
A directed study of selected problems in finance. May be repeated with approval department head. Prerequisite: Approval of the department head.

FINC 4090. Special Topics in Finance. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 0 Hours).
An examination of current topics in finance. Readings required from current finance publications and other related periodicals. May be repeated for credit when topics vary. Prerequisite: 9 hours of FINC.

FINC 4300. Advanced Financial Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An advanced analysis of value-based management techniques with emphasis on the factors affecting the corporation's quest to maximize shareholder wealth. Topics covered include financial statement analysis, cash flow analysis, economic and market valued added, securities valuation, the cost of capital, capital budgeting, capital structure, dividend policy, the use of leverage, working capital management, and corporate governance. Prerequisite: FINC 3301.

FINC 4301. International Financial Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Issues and questions which concern financial management of international corporations. Analysis of the financing of investment abroad and the management of assets in differing financial environments. The foreign investments decision, cost of capital and financial structure for multinational decision making, management of foreign subsidiary working capital, and financial control of multinational operations. Prerequisite: FINC 3301 or approval of department head.

FINC 4302. Real Estate Finance. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of monetary systems, primary and secondary money markets, sources of mortgage loans, federal government programs, loan applications, processes and procedures, closing costs, alternative financial instruments, equal credit opportunity acts, community reinvestment act, and state housing agency.

FINC 4303. Case Studies in Finance. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
Capstone course requires students to use fundamental concepts learned in previous finance, accounting, and economics courses to analyze real-world finance problems. Using both structured and unstructured cases, student teams analyze problems and recommend solutions. Argument is presented both orally and in writing. Cases draw from such areas as corporate finance, investments, international finance, and personal finance. Prerequisite: FINC 3301.

FINC 4304. Investments I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The development of investment policy; the character of investment risk; a comparison of investment media; description and analysis of security markets and their operations. Prerequisite: FINC 3301.

FINC 4307. Investments II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course builds on Investments I, adding new assets (e.g. derivatives), new theoretical models (e.g. option valuation), and new techniques(e.g. hedging strategies). In addition, the course will cover asset management theories and measures. Prerequisite: FINC 3301, FINC 4304.

FINC 4308. Principles of Insurance and Risk Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A survey course focusing on the theory and practice of private insurance and its economic and social significance. Major types of insurance are examined: life, health, automotive, homeowners, and liability. Various forms of risk management, characteristics of insurance contracts, government regulatory characteristics, and institutional structures are studied.

FINC 4310. Professional Financial Planning. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Applies basic financial and economic models to council individuals, families, and business to achieve financial goals. Topics include the CFP™ code of ethics, fiduciary standards, needs analysis, credit management, retirement savings, income planning and the psychology of financial planning. Prerequisite: FINC 3301.

FINC 4380. Financial Planning Capstone. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Application of financial planning tools and process. Course includes the analysis of financial statements, presentations, case analysis and professional fiduciary conduct. This course is required in order to be eligible for the CFP™. Prerequisite: 12 hours of FINC classes or department head approval.

FINC 4385. Seminar in Finance. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of selected topics dealing with problems or unique needs of Finance. May be repeated for credit as topics vary. Prerequisite: Approval from department head.

Management Courses

MGMT 3300. Principles of Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the basic managerial functions of planning, organizing, leading, and controlling resources to accomplish organizational goals. Management theories and the business environment are also covered.

MGMT 3302. Human Resource Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Fundamental functions of human resources management; relationship between personnel management and organizations' emerging role of personnel administration in development of strategic policy for organizations.

MGMT 3304. Small Business Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A course focused on key areas to consider when establishing and/or operating a small business in today's complex and dynamic business environment. Areas of focus may include the current state of small business and the importance of entrepreneurs in the global economy, essential management skills and entrepreneurial traits, avenues for small business ownership, the importance, role, and components of business plans and the planning process, accounting and financial considerations, marketing/customer service, and exit strategies, among other areas. Guest presentations by entrepreneurs, consultants, and other key individuals who engage with entrepreneurs may be integrated into the course, along with other popular press publications which focus on current topics and trends in small business.

MGMT 3325. Leadership. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Advanced studies of contemporary leadership issues; the history of leadership; leadership theories; leadership ethics and values; group dynamics; organizational behavior; methods of effective team building; community activism; the politics of gender, race, disability, and age; the dynamic of power; and the aspect of professional networking. Course will include in depth study of above mentioned topics, as well as extensive discussion and research of related leadership issues.

MGMT 3350. Organization Behavior. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides a comprehensive analysis of the behavior of people at work in all types of organizations. Topics include fundamentals of organizational behavior: values, ethics, motivation, group dynamics, individual differences, attitudes, decision-making, conflict, power, change, stress, leadership, rewarding behavior, communication, and organizational structure.

MGMT 4084. Internship. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 1-20 Hours).
Preapproved and supervised work experience in a management related position with a public or private business organization. May be repeated for a total of 6 hours credit. Prerequisite: Approval of Instructor and Department Head.

MGMT 4086. Problems. 1-3 Credit Hours (Lecture: 0 Hours, Lab: 1-3 Hours).
A directed study of selected problems in management. May be repeated with department head approval. Prerequisites: Approval of Instructor and Department Head.

MGMT 4090. Special Topics in Management. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 1-3 Hours).
An examination of current topics in the field of management. Readings required from current management publications and other related periodicals. May be repeated for credit when topics vary.

MGMT 4303. Strategic Compensation. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Wage and salary administration in public and private organizations; determinants of general wage and salary levels and structures; total compensation systems, interrelationship among employee performance, intrinsic and extrinsic rewards, perceived equitable payments, employee satisfaction. Prerequisite: MGMT 3302.

MGMT 4304. Staffing Organizations. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Recruitment and selection of human resources for organizations; optimal utilization of human resources within organizations; use of tests and other techniques in human resource management. Prerequisite: MGMT 3302.

MGMT 4305. Human Resource Development. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Practical and theoretical approaches to training and development of employees in an organization. Topics include organization, role and scope, training and development functions, philosophies, strategies, need analysis, development of program content, methods, materials and techniques, and evaluation and control of the training and development function.

MGMT 4306. Employee and Labor Relations. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Collective bargaining, labor market fundamentals, unionism, and related issues of labor economics.

MGMT 4307. Business Ethics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
An analysis and examination of significant contemporary ethical issues and problems existing throughout the professional business arena. Emphasis will be upon the manager's social and environmental responsibilities to employees, customers, and the public.

MGMT 4308. Negotiation & Conflict Resolution. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is an introduction to the principles and methods of negotiation and conflict resolution that come about due to interpersonal and inter-group conflict. Explores the major theories, models, and concepts of bargaining and negotiation and introduces the topics of mediation and alternative dispute resolution.

MGMT 4312. Entrepreneurship. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Addresses the process of generating ideas for new business, writing comprehensive business plans. Emphasis on information sources, industry analysis.

MGMT 4315. Project Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is geared towards teaching students the fundamentals of project management based on the Project Management Body of Knowledge developed by the Project Management Institute. In particular, students will learn about scope, time, cost, quality, human resource, communication and procurement management and develop a comprehensive project plan accordingly.

MGMT 4320. International Entrepreneurship. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Entrepreneurship is a driver of growth, innovation, and wealth creation across developed, developing, and undeveloped nations. Increasingly, entrepreneurship is international from the founding of the venture. Entrepreneurial ventures source inputs from foreign firms and sell goods to foreign markets. Herein, we identify and address global entrepreneurial activities and evaluate the complex environment of global entrepreneurship. The course integrates theory with practical experiences in international entrepreneurship to provide students with the foundation to identify, evaluate and develop global entrepreneurial opportunities. The course is designed to prepare students for careers as founders of, early hires in, investors in, advisors to, or managers in global ventures.

MGMT 4321. Production and Operations Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Topics covered include: industrial organization, scientific management, planning and control, building locations and layouts, wage rates, corporation relationships, and research. Prerequisite: BUSI 2305 or concurrent enrollment.

MGMT 4323. Innovation and Creativity in Business. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The course explores the entrepreneurial mindset as it relates to creativity, innovation and creative problem-solving in the current business environment. Students will investigate various perspectives to ground an understanding of creativity, innovation and the uses of creative problem-solving. We will review theoretical and applied models of creativity and innovation as they relate to individuals, groups, and organizations. The materials address the creative process and its complexity as it fuels innovation in both a corporate and entrepreneurial environment though video presentations and discussions.

MGMT 4325. Trends and Issues in Entrepreneurship. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An examination of trends, topics, and opportunities in the entrepreneurial/small business arena. The course will explore the ever-changing environment of the 21st century entrepreneur with a focus on emerging trends, current research, popular press publications and articles, and other present day resources. Identification of potential impact, implications, and/or opportunities for the current or prospective entrepreneur will be a focus. Prerequisite: N/A.

MGMT 4354. International Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A global approach to the study of management to include international dimensions of the marketplace and environment, the role of culture, international strategic management, organizational behavior and human resource management.

MGMT 4385. Seminar in Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Deals with current issues in management. Readings are required from current management publications and other related periodicals. May be repeated for credit when topics vary. Prerequisites: 15 hours in MGMT and approval of department head.

MGMT 4389. Global Management Practices. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of basic international business concepts, cultural literacy, and discipline specific content are then applied to practical experiences and activities in the foreign country visited. A study abroad at the student's expense is required. Student may complete a maximum of six hours of COBA sponsored study abroad toward degree completion.

Marketing Courses

MKTG 2314. Marketing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Examination of the principles and concepts of marketing goods, services, and intangibles by profit and non-profit organizations in a free enterprise and global economy.

MKTG 3312. Marketing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Examination of the principles and concepts of marketing goods, services, and intangibles by profit and non-profit organizations in a free enterprise and global economy.

MKTG 3315. Personal Selling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the role and function of personal selling as a part of the marketing mix. Techniques in identifying and locating prospective customers, approaching the prospect, presentation, and demonstrations of products and services, closing the sale, and servicing customer accounts are covered in theory and practice. Prerequisite: MKTG 2314 or MKTG 3312.

MKTG 3316. Consumer Behavior. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Acquaints students with individual and group behavior of people performing in consumer role. Considers such topics as buying motives, social class, and research techniques in consumer behavior. Prerequisite: MKTG 2314 or MKTG 3312.

MKTG 3317. Retailing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Fundamental operations of retailing, studying of buying practices, pricing, store locations and layout, sales promotions, personnel management, and stock control. Designed to aid the student seeking a general knowledge of the retail field as well as those specializing in Marketing. Prerequisite: MKTG 2314 or MKTG 3312.

MKTG 3318. Promotional Strategy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of a controlled, integrated program of promotional variables. Designed to present a company and its products to prospective customers; to promote need-satisfying attributes of products toward the end of facilitating sales and long-run performance. Prerequisite: MKTG 2314 or MKTG 3312.

MKTG 4084. Internship. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 1-20 Hours).
Preapproved and supervised work experience in a marketing related position with a public or private business organization. May be repeated for a total of 6 hours credit. Prerequisite: Either MKTG 2314 or MKTG 3312, and approval of Department Head.

MKTG 4086. Problems. 1-3 Credit Hours (Lecture: 0 Hours, Lab: 1-3 Hours).
A directed study of selected problems in marketing. May be repeated with approval of the department head. Prerequisites: Approval of instructor and Department Head.

MKTG 4090. Special Topics in Marketing. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 0 Hours).
An examination of current topics in marketing. Readings required from current marketing publications and other related periodicals. May be repeated for credit when topics vary. Prerequisite: 9 hours of MKTG.

MKTG 4302. Services Marketing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduce the student to the service environment. An in-depth analysis of the most successful service-oriented industries and firms within the world's fastest-growing economic sector will be presented. Prerequisite: MKTG 2314 or MKTG 3312.

MKTG 4312. Sales Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Administration of an effective sales force, including strategy, planning, recruiting, training, motivating, coordinating, leading, and directing sales forces at all levels of marketing enterprises. Prerequisites: Either MKTG 2314 or MKTG 3312, and MKTG 3315.

MKTG 4314. Supply Chain and Logistics Concepts. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Explore key business concepts, issues and decisions required for the organization and management of supply chains within the global marketplace. Supply Chain Management involves planning and coordinating the value-added activities and flow of materials, finished goods and information. Supply chain organizations participate in the product fulfillment process so that products are distributed to customers in the right quantity, time, and at the lowest cost subject to customer expectation and other service requirements. Prerequisite: MKTG 2314 or MKTG 3312.

MKTG 4315. Marketing Research. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Familiarizes students with the accurate, objective, and systematic gathering, recording, and analyzing of data about problems relating to marketing goods and services. Prerequisites: Either MKTG 2314 or MKTG 3312, and either BUSI 2305 or BUSI 3311.

MKTG 4316. Marketing Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The application of strategic planning and management of all functional aspects of the marketing operation of an enterprise using comprehensive analytical methods and an integrated marketing mix. Prerequisites: Either MKTG 2314 or MKTG 3312, and 6 hours of upper level MKTG.

MKTG 4354. International Marketing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A global approach to the study of comparative marketing systems, including economic, social, technological, governmental, and political environments as they affect international marketing operations. Prerequisite: MKTG 2314 or MKTG 3312.

MKTG 4385. Seminar in Marketing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of selected topics dealing with problems or unique needs of Marketing. May be repeated for credit as topics vary. Prerequisite: Approval from instructor & department head.

MKTG 4389. Global Marketing Practices. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of basic international business concepts, cultural literacy, and discipline specific content are then applied to practical experiences and activities in the foreign country visited. A study abroad at the student's expense is required. Student may complete a maximum of six hours of COBA sponsored study abroad toward degree completion. Field assignment fee of $50. Prerequisites: Either MKTG 2314 or MKTG 3312, or approval of instructor and department head.

Real Estate Courses

REST 4084. Internship. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 1-20 Hours).
Preapproved and supervised work experience in a Real Estate related position with a public or private business organization. May be repeated for a total of 6 hours credit. Prerequisite: Approval of department head.

REST 4086. Problems. 1-3 Credit Hours (Lecture: 0 Hours, Lab: 1-3 Hours).
A directed study of selected problems in Real Estate. May be repeated with approval of the head of the Department. Prerequisite: Approval of department head.

REST 4090. Special Topics in Real Estate. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 1-3 Hours).
An examination of current topics in real estate. Readings required from current real estate publications and other related periodicals. May be repeated for credit when topics vary. Prerequisite: 9 hours of REST.

REST 4303. Texas Real Estate Agency Law. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of agency concepts, basic agency relationships, disclosure and duties to client, disclosure and duties to third parties, creation and termination of the agency relationship, seller agency, subagency, buyer agency, representing more than one party in a transaction, dual agency, intermediary brokerage, single agency, clarifying agency relationships, employment issues, Deceptive Trade Practices and Consumer Protection Act, selected statutes and TREC rules, ethical and legal responsibilities.

REST 4304. Principles of Real Estate I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of licensing as a real estate broker and salesperson, distinctions between real and personal property, the real estate market, concepts of home ownership, real estate brokerage and the law of agency, fair housing laws and ethical practices, Real Estate License Act, interests in real estate, how ownership is held, legal descriptions, encumbrances and liens.

REST 4305. Principles of Real Estate II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of licensing as a real estate broker and salesperson, ethics of practice, titles to the conveyancing of real estate, legal descriptions, law of agency, deeds, encumbrances and liens, distinctions between personal and real property, contracts, appraisal, finance and regulations, closing procedures, and real estate mathematics.

REST 4306. Texas Real Estate Contracts. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the Texas Real Estate License Act (TRELA) and the Rules of the Texas Real Estate Commission, the contract and other promulgated contracts and associated forms, obtaining a real estate loan, property descriptions, estimating seller net and buyer move-in.

REST 4307. Real Estate Law. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Study of legal concepts of real estate, land description, real property rights and estates in land, contracts, conveyances, encumbrances, foreclosures, recording procedures, and evidence of titles.

REST 4308. Real Estate Brokerage. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of real estate brokerage office, planning and organization, operational policies and procedures, law of agency, recruiting, selection and training of personnel records and control, real estate firm analysis and expansion criteria.

REST 4309. Real Estate Appraisal. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the central purposes and functions of an appraisal, social and economic determinant of value, appraisal of case studies, cost, market data and income approaches to value estimates, final correlations, and reporting.

REST 4385. Seminar in Real Estate. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of selected topics dealing with problems or unique needs of Real Estate. May be repeated for credit as topics vary. Prerequisite: Approval from department head.

Department of Accounting, Finance, and Economics

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Welcome to the Department of Accounting, Finance, and Economics at Tarleton State University's Dr. Sam Pack College of Business, an AACSB-accredited institution. Our department is dedicated to fostering academic excellence and preparing students for success in the fields of accounting, finance, and economics. With a robust selection of programs, experienced faculty, and a commitment to professional readiness, we equip students to excel in their chosen careers.

Accounting, Finance, and Economics involve critical decision-making in business, policy, and everyday life. The Master of Accounting (MACC) program is recognized for its outstanding performance, boasting one of the highest pass rates on the Certified Public Accountant (CPA) exam among public universities in the Dallas-Fort Worth area and the Texas A&M University System. Our courses cover essential topics such as future business planning, adapting to changing economic conditions (e.g., ACCT 2302, FINC 3301, ECON 2301), personal financial planning and investment (e.g., ACCT 4315, BUSI 1307, FINC 4304, and ECON 2302), and areas like taxation, healthcare, and environmental economics (e.g., ACCT 4305, ECON 3304, and FINC 5320).

The Department of Accounting, Finance, and Economics offers programs leading to the Bachelor of Business Administration in Accounting, the Bachelor of Business Administration in Finance with concentrations in Corporate Finance or Financial Planning, and the Bachelor of Science in Economics. Additional offerings include a Minor in Real Estate and courses in Business Law. Courses are available face-to-face at the Stephenville campus and outreach sites in Waco and Fort Worth. More information about these programs is available on the Tarleton website.

The Department also offers the Master of Accounting (MACC) program, while the Dr. Sam Pack College of Business collectively offers the Master of Business Administration (MBA) program. Students aspiring to become Certified Public Accountants (CPA) or Certified Management Accountants (CMA) are strongly encouraged to pursue a BBA in Accounting followed by a MACC. Students graduating with a BBA in Accounting or Finance and a 3.0 GPA or higher are automatically admitted to the MACC program.

Bachelor of Business Administration in Accounting

The Bachelor of Business Administration (BBA) in Accounting provides a strong foundation in business and specialized training in financial management, taxation, and auditing. This **120-credit hour program** prepares students for dynamic careers in accounting, finance, and related fields, with a curriculum designed to meet the demands of both private and public sectors.

Program Highlights:

- Core business courses such as Business Communication, Principles of Management, and Marketing.
- In-depth accounting coursework, including Intermediate Accounting, Cost/Management Accounting, Auditing, and Federal Tax Accounting.
- Specialized electives like Fraud Examination, Python Programming for Data Science, and Ethics for Professional Accountants allow students to tailor their learning to specific career goals.
- A global business perspective is developed through courses such as Introduction to International Business, Global Information Systems, or International Financial Management.

This program is an excellent choice for students aspiring to pursue certifications such as **Certified Public Accountant (CPA)** or **Certified Management Accountant (CMA)**. Graduates will be equipped with analytical, technical, and ethical decision-making skills essential for success in a wide range of accounting roles. Start your journey toward becoming a financial leader with the BBA in Accounting!

150-Hour CPA Certification Requirements

For those preparing to become Certified Public Accountants, the **Public Accountancy Act of 1991** requires applicants to have completed at least a baccalaureate degree and no fewer than 150 semester credit hours of recognized courses. The **BBA in Accounting** satisfies 120 of the required 150 hours. To fulfill the remaining 30 hours, students can pursue the MACC or MBA degree as described in the graduate catalog. Learners with a baccalaureate degree in accounting can complete the MACC with the remaining 30 semester hours. Alternatively, students may meet the 150-hour requirement by taking additional undergraduate courses without pursuing a graduate degree.

A departmental accounting advisor will work with each student to create an individualized study program tailored to their professional goals.

NOTE: It is recommended that non-BBA learners interested in the MACC should consider taking the following courses (or their equivalents) as their Business Minor to satisfy Graduate Leveling Requirements:

- ACCT 2301 - Principles of Accounting I - Financial
- ACCT 2302 - Principles of Accounting II - Managerial
- ACCT 3303 - Intermediate Accounting I
- ACCT 3304 - Intermediate Accounting II
- And any two of the following courses (ACCT 3302 Cost Accounting; BUSI 2311 Business Statistics; ECON 2301 Principles of Macroeconomics; ECON 2302 Principles of Microeconomics; FINC 3301 Principles of Finance)

Those interested in graduate programs should consult the graduate section of this catalog.

General Education Requirements (p. 396)		42
Select one of the following (shared with the General Education Core)		
MATH 1314	College Algebra	
MATH 1324	Math for Business & Social Sciences I (Finite Mathematics)	

MATH 1332	Contemporary Mathematics I	
MATH 1342	Elementary Statistical Methods	
MATH 2412	Precalculus Math	
MATH 2413	Calculus I	
Common Business Core and Major Specific Requirements [1]		
BCIS 1305	Business Computer Applications	3
BUSI 1301	Business Principles	3
Select one of the following:		3-4
MATH 1316	Plane Trigonometry	
MATH 1324	Math for Business & Social Sciences I (Finite Mathematics)	
MATH 1325	Math for Business & Social Sciences II (Business Calculus)	
MATH 2412	Precalculus Math	
MATH 2413	Calculus I	
ACCT 2301	Principles of Accounting I-Financial	3
ACCT 2302	Principles of Accounting II-Managerial	3
BUSI 2301	Business Law I	3
BUSI 2305	Business Statistics	3
ECON 2301 [shared]	Principles of Macroeconomics	
ECON 2302	Principles of Microeconomics	3
BUSI 3312 [WI (p. 396)]	Business Communication	3
FINC 3301	Principles of Financial Management	3
MGMT 3300	Principles of Management	3
MKTG 3312	Marketing	3
BCIS 4350	Management Information Systems	3
Select one of the following:		3
BCIS 4355	Global Information Systems	
BUSI 4344	Introduction to International Business	
ECON 4301	International Economics	
FINC 4301	International Financial Management	
BUSI 4359 [WI (p. 396)]	Business Strategy	3
Major Specific Courses [1]		
ACCT 3302	Cost/Management Accounting	3
ACCT 3303	Intermediate Accounting I	3
ACCT 3304	Intermediate Accounting II	3
ACCT 3310	Accounting Information Systems	3
ACCT 4301	Financial Accounting	3
ACCT 4305	Federal Tax Accounting I	3
ACCT 4324	Auditing	3
BLAW 4333	Business Law II	3
Select 3 hours from: [2]		3
ACCT 3301	Business Analysis using Spreadsheets	
ACCT 4306	Federal Tax Accounting II	
ACCT 4315	Taxation of Gifts and Estates	
ACCT 4323	Ethics for Professional Accountants	
ACCT 4325	Fraud Examination	
COSC 3360	Python Programming for Data Science	
ECON 4311 [WI (p. 396)]	Econometrics and Forecasting	
Elective(s)		
Electives		6
Total Hours		**120**

Bachelor of Business Administration in Finance

The Bachelor of Business Administration in Finance provides students with the knowledge and skills to excel in careers such as financial management, investments, banking, and insurance. This program combines a strong foundation in business principles with advanced coursework in areas like financial planning, risk management, international finance, and investments. Students can choose from concentrations in **Corporate Finance** or **Financial Planning** to tailor their education to career goals. Graduates are equipped to navigate the complexities of financial decision-making in a global economy.

Designated Core Courses:		
MATH 1324 [shared]	Math for Business & Social Sciences I (Finite Mathematics)	
ECON 2301 [shared]	Principles of Macroeconomics	
Discipline Foundation Courses:		
ECON 2302	Principles of Microeconomics	3
BUSI 1301	Business Principles	3
ACCT 2301	Principles of Accounting I-Financial	3
ACCT 2302	Principles of Accounting II-Managerial	3
Directed Electives:		
BUSI 2305	Business Statistics	3

BCIS 1305	Business Computer Applications	3
Total Hours		**18**
General Education Requirements (p. 396)		42
Common Business Core and Major Specific Requirements [1]		
MATH 1325	Math for Business & Social Sciences II (Business Calculus)	3
BUSI 2301	Business Law I	3
BUSI 3312 [WI (p. 396)]	Business Communication	3
FINC 3301	Principles of Financial Management	3
MGMT 3300	Principles of Management	3
MKTG 3312	Marketing	3
BCIS 4350	Management Information Systems	3
BUSI 4359 [WI (p. 396)]	Business Strategy	3
Major Specific Requirements [1]		
ECON 3303	Money And Banking	3
FINC 3302	Bank Management	3
ACCT 4305	Federal Tax Accounting I	3
ECON 4311 [WI (p. 396)]	Econometrics and Forecasting	3
FINC 4301	International Financial Management	3
FINC 4304	Investments I	3
FINC 4307	Investments II	3
FINC 4308	Principles of Insurance and Risk Management	3
Electives		
Electives		3
Total Hours		**93**

Corporate Finance

ACCT 3303	Intermediate Accounting I [1]	3
FINC 4300	Advanced Financial Management [1]	3
FINC 4303 [WI (p. 396)]	Case Studies in Finance [1]	3
Total Hours		**9**

Financial Planning

ACCT 4315	Taxation of Gifts and Estates [1]	3
FINC 4310	Professional Financial Planning [1]	3
FINC 4380	Financial Planning Capstone [1]	3
Total Hours		**9**

Bachelor of Science in Economics

The Bachelor of Science in Economics equips students with analytical and problem-solving skills to understand and address complex economic challenges. This 120-credit hour program combines a foundation in business and mathematics with advanced coursework in macroeconomics, microeconomics, international economics, and econometrics. Students also develop practical skills in professional writing, data analysis, and business communication.

Program Highlights:

- Core courses include Money and Banking, Intermediate Macroeconomics, and Econometrics and Forecasting.
- Flexibility to pursue a minor or second major, along with advanced electives in accounting, finance, or business law.
- Graduates are well-prepared for careers in banking, policy analysis, data analytics, and more, or for further study in graduate programs.

This program is ideal for students seeking a strong foundation in economics and its applications in the global marketplace.

General Education Requirements (p. 396)		42
Major Specific Requirements		
MATH 1324 [shared]	Math for Business & Social Sciences I (Finite Mathematics)	
MATH 1325	Math for Business & Social Sciences II (Business Calculus)	3
Select one of the following:		3
MATH 1342	Elementary Statistical Methods	
BUSI 2305	Business Statistics	
AGEC 3317	Agricultural Statistics	
ECON 2301	Principles of Macroeconomics	3
ECON 2302	Principles of Microeconomics	3
ACCT 2301	Principles of Accounting I-Financial	3
or ACCT 3300	Accounting Concepts	
ACCT 3301	Business Analysis using Spreadsheets	3
ECON 3301	Intermediate Macroeconomics	3
ECON 3302	Intermediate Microeconomics	3
ECON 3303	Money And Banking	3
ENGL 3309 [WI (p. 396)]	Professional Writing	3
or BUSI 3312	Business Communication	
ECON 4301	International Economics	3

ECON 4311 [WI (p. 396)]	Econometrics and Forecasting	3
Advanced ECON		3
One elective from ACCT, BCIS, BLAW, BUSI, FINC, MGMT, MKTG, or REST		3
Advanced Electives		15
Electives		21
Total Hours		**120**

Other Information

- **Academic Appeals Process**: Tarleton's Dr. Sam Pack College of Business adheres to the university's policies on academic appeals. Students experiencing academic grievances should consult the **Satisfactory Academic Performance** section on the Student Services and Resources (https://www.tarleton.edu/cob/student-services-and-resources/) page. This resource provides clear guidance on the steps for addressing and resolving academic concerns. For further assistance, students are encouraged to contact the appropriate university support services.
- **Netiquette (https://www.tarleton.edu/cob/netiquette/):** Learners are expected to communicate respectfully, respond promptly, and actively participate in discussions and group activities to ensure a collaborative and effective learning environment.
- **Minimum Technology Requirements (https://www.tarleton.edu/cob/minimum-technology-requirements/):** Students enrolled in programs within Tarleton's AACSB-accredited Dr. Sam Pack College of Business must meet minimum technology requirements to ensure seamless access to course materials and online learning activities. Requirements include a reliable computer, high-speed internet connection, and standard productivity software such as Microsoft Office. Additional recommendations may include specific software or tools relevant to the program, as outlined in advising guides or course syllabi. For further assistance, students can access university technical support services.
- **Computer Skills and Digital Information Literacy Skills (https://www.tarleton.edu/cob/computer-skills-and-digital-information/):** To succeed in your courses course, students should possess essential skills such as time management, critical thinking, effective communication, and basic technical proficiency relevant to the course content.
- **Vendor Privacy Statements (https://www.tarleton.edu/cob/vendor-privacy-statements/):** Students are encouraged to review the privacy policies of tools used in your courses to understand how their data is managed. Use of these tools implies agreement with their terms.
- **Technical Support (https://www.tarleton.edu/cob/technical-support/):** For technical support with tools used in your courses, refer to the vendor support resources provided for troubleshooting and assistance. These resources offer guidance to resolve common issues effectively.
- **Accessibility Support (https://www.tarleton.edu/cob/accessibility-support/):** For accessibility support services related to tools used in your courses, visit the vendor accessibility pages provided to ensure inclusive and equitable access. These resources address common accessibility concerns and offer assistance.
- **Academic Support Services (https://www.tarleton.edu/cob/academic-support-services/):** Tarleton's Dr. Sam Pack College of Business offers various academic support services to help students succeed, including orientations for undergraduate and graduate programs, library services, the Math Achievement Center, the Writing Center, and the Tutoring and Learning Center. These resources provide personalized support, from enhancing writing skills to developing effective learning techniques.
- **Student Services and Resources (https://www.tarleton.edu/cob/student-services-and-resources/):** Tarleton's Dr. Sam Pack College of Business offers a wide range of resources to support student success, including academic advising, registration guidance, financial aid assistance, and counseling services. Additional support includes tools for scholarships, veteran services, and career development, with specialized resources like internships and student organizations to enhance professional growth.
- **Vendor Accessibility Statements (https://www.tarleton.edu/cob/vendor-accessibility-statements/):** The Dr. Sam Pack College of Business is committed to providing accessible technology for all students. Accessibility statements for all required technologies used in COB courses, including tools like Canvas, Adobe, Microsoft, Pearson products, and Zoom, are available to ensure equitable access. These statements outline the accessibility features and accommodations provided by each vendor to support an inclusive learning environment.
- **Undergraduate Online Orientation (https://tarleton.instructure.com/courses/19004/):** The Undergraduate Online Orientation introduces new graduate students to the resources, expectations, and academic culture of the Dr. Sam Pack College of Business (DSPCOB). This self-paced program covers key aspects of graduate studies, including navigating the online learning environment, utilizing university services like the library and writing center, and understanding program policies and procedures. Orientation ensures that students feel confident and prepared to succeed in their academic journey.
- **Undergraduate Course Rotations and Advising Guides (https://www.tarleton.edu/majorinfo/):** Undergraduate Course Rotations provide a structured schedule of when specific graduate courses are offered across semesters. This information helps students plan their academic paths efficiently, ensuring they can meet degree requirements within their desired timeline. Rotations typically detail which courses are available in the fall, spring, and summer semesters and indicate whether they are offered online, in-person, or in hybrid formats. Similarly, Advising Guides help provide learners with guidance as they plan out course sequencing for their program.
- **DSPCOB Syllabi (https://tarleton.simplesyllabus.com/en-US/syllabus-library/?organization_id=959fb73a-4c87-429b-b594-b6478f07c5b2):** The DSPCOB Syllabi repository gives students access to detailed course syllabi for all graduate and undergraduate programs within the college. Each syllabus outlines the course objectives, topics covered, grading criteria, required materials, and policies on academic integrity, attendance, and participation. The syllabi serve as a roadmap for academic success, offering clarity on expectations and resources for each course.
  - DSPCOB Syllabi Repository (https://tarleton.sharepoint.com/:f:/s/COBA-CollegeofBusinessAdministration/EmCXrId_dflHuYGPgq8EwJIBdOYJhbXS9ewutrtVFGbR-A/?e=Eom9Kh) (Syllabi prior to the implementation of Simple Syllabus implemented for Spring 2025)

Questions?

Have more questions? Reach out to one of our advisors at DSPCOB Undergraduate Advisors (https://www.tarleton.edu/cob/undergraduate-advising/)!

Chair

- Goodpasture, Dr. Jim

Administrative Associate V

- Dummar, Ms. Michelle

Regents Professor

- Jafri, Dr. Hussain

Professors

- Aroskar, Dr. Rajarchi
- Blythe, Dr. Stephen
- Esqueda, Dr. Omar
- Jafri, Dr. Hussain

- Sankar, Dr. Sundarrajan
- Thomas, Dr. Charles (Chuck)

Associate professors

- Bauer, Dr. Keldon
- Gordey, Dr. Laura
- Goodpasture, Dr. James
- Katuwal, Dr. Hari
- Leach, Dr. Judd
- Post, Dr. Kyle
- Rogers, Dr. Nina
- Watson, Dr. Derrill

Assistant professors

- Karimi, Dr. Mohammad Sharif
- Lamptey, Dr. Ebenezer
- Seo, Dr. Jiwoo
- Tanter, Mr. Alex
- Varnell, Ms. Karen

Instructor

- Burkhart, Ms. Rachel

Visiting Professor

- Chen, Dr. Yong

Accounting Courses

ACCT 2301. Principles of Accounting I-Financial. 3 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).
This course is an introduction to the fundamental concepts of financial accounting as prescribed by U.S. generally accepted accounting principles (GAAP) as applied to transactions and events that affect business organizations. Students will examine the procedures and systems to accumulate, analyze, measure, and record financial transactions. Students will use recorded financial information to prepare a balance sheet, income statement, statement of cash flows, and statement of shareholders' equity to communicate the business entity's results of operations and financial position to users of financial information who are external to the company. Students will study the nature of assets, liabilities, and owners' equity while learning to use reported financial information for purposes of making decisions about the company. Students will be exposed to International Financial Reporting Standards (IFRS). Prerequisite: MATH 1314, MATH 1332, MATH 1324, MATH 2412, MATH 2413, MATH 1342, or concurrent enrollment, or approval of department head. Lab fee: $2.

ACCT 2302. Principles of Accounting II-Managerial. 3 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).
This course is an introduction to the fundamental concepts of managerial accounting appropriate for all organizations. Students will study information from the entity's accounting system relevant to decisions made by internal managers, as distinguished from information relevant to users who are external to the company. The emphasis is on the identification and assignment of product costs, operational budgeting and planning, cost control, and management decision making. Topics include product costing methodologies, cost behavior, operational and capital budgeting, and performance evaluation. Prerequisite: ACCT 2301. Lab fee: $2.

ACCT 3300. Accounting Concepts. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A survey of basic accounting principles, concepts, and methods to include a review of general purpose financial statements and the accounting process. Financial accounting procedures are presented to support the overall managerial function. This course is provided for students without a previous accounting background. This course is designed to provide non-BBA students with sufficient introductory accounting to prepare them to survive in an introductory finance course. The coverage is not deep enough in either financial or managerial accounting for any recognized Bachelor of Business Administration (BBA) program. The introductory financial accounting (ACCT 2301) and managerial accounting (ACCT 2302) courses are required for all BBA majors anyway, and would better prepare those students for further studies in Finance. Therefore, credit for both ACCT 3300 and ACCT 2301 will not be permitted by the College of Business Administration.

ACCT 3301. Business Analysis using Spreadsheets. 3 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).
Theory and application of microcomputer technology in the practice of accounting and finance. Emphasis on the utilization of basic spreadsheet and general ledger software. Intended to stimulate creative initiative in performing accounting tasks and to develop the basic skills necessary to efficiently and effectively utilize the microcomputer. Credit for both BCIS 3301 and ACCT 3301 will not be awarded. Prerequisite: ACCT 2301 or ACCT 3300 Lab fee: $2.

ACCT 3302. Cost Accounting. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introductory cost course, emphasizing the accounting for material, labor, and manufacturing expenses in both job order and process cost systems. Special attention to distribution of service department cost and costing of byproducts and joint products. Prerequisite: ACCT 2302 or approval of department head.

ACCT 3303. Intermediate Accounting I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course's primary emphasis is on learning the theory and application of generally accepted accounting principles. The environment and groups that have influenced both the development and use of the financial accounting standards are introduced, followed by a study of FASB's conceptual framework. There is a thorough review of the accounting process followed by an in-depth study of the content and form of the financial statements. The time value of money is used for problem solving. The final topics include the recording, valuation, and reporting of cash, receivables, and inventories. Prerequisite: ACCT 2301.

ACCT 3304. Intermediate Accounting II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A continuation of Intermediate Accounting I with continued emphasis on generally accepted accounting principles as applied to the business enterprise. A study of the theory and application of generally accepted accounting principles. Topics include property, plant, and equipment; intangible assets; investments; current liabilities; long term liabilities; leases; stockholder's equity; and earnings per share. Prerequisite: ACCT 3303.

ACCT 3310. Accounting Information Systems. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Specific study of design and implementation of complex accounting information systems. An understanding of the traditional accounting model and its relationship to each type of accounting information system will be emphasized, including accounts receivable, inventory control, cost accounting, operational budgeting, and capital budgeting. Key elements of a well-designed management control system are included. Prerequisite: ACCT 2302 or approval of department head. Lab fee $15.

ACCT 4084. Internship. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 1-20 Hours).
Directed real-world learning experience under the supervision of a practicing professional accountant. The internship assignment must be approved by an accounting internship advisor prior to enrollment. The internship must be related to the student's field of study and requires at least 320 hours of supervised work in total, including at least 160 during the semester term. Student maintains a diary of work experience gained and, at semester-end, prepares a written paper reflecting on the work experience. Student also provides to accounting internship advisor the employer's evaluation of performance and maintains records of all the listed documentation. No credit will be given for previous experience or activities. Prerequisites: Must have completed 90 semester credit hours including a minimum of 12 semester credit hours of upper division accounting course work and have at least a 2.5 GPA overall with at least a 3.0 GPA in accounting courses.

ACCT 4086. Problems. 1-3 Credit Hours (Lecture: 0 Hours, Lab: 1-3 Hours).
A directed study of selected problems in accounting. May be repeated with approval of department head. Prerequisites: Approval of department head.

ACCT 4090. Special Topics in Accounting. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 1-3 Hours).
An examination of current topics in accounting. Readings required from current accounting publications and other related periodicals. May be repeated for credit when topics vary. Prerequisites: 9 hours in ACCT.

ACCT 4301. Financial Accounting. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is a part of and a continuation of the Intermediate Accounting sequence. It extends and builds directly on what students have learned in ACCT 3303 and 3304. Topics may include: accounting for pensions; accounting for income taxes in a corporation's financial reporting; changes in accounting principles and correction of errors; preparation of statement of cash flows. This course is intended to qualify for recognition by the Texas State Board of Public Accountancy as one semester hour in accounting research and analysis (reflecting the dedication of one semester hour to research and analysis). Accordingly, this course addresses the identification, organization, and integration of diverse sources of information to reach a conclusion or make a decision; and should analyze accounting and taxation issues by reviewing information, using empirical data and analytical methods, recognizing data in patterned activities, forecasting, and integrating data. Prerequisite: ACCT 3304 or concurrent enrollment Lab fee: $2.

ACCT 4303. Advanced Financial Accounting & Reporting. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An intensive study of theory and practices related to advanced financial accounting topics pertaining to partnerships, joint ventures, consignments, installment sales, insolvent (bankruptcy) concerns, and business combinations. Significant coverage of consolidated financial statements is provided in this course. The course covers foreign currency translation, hedge accounting and International Accounting Principles. This course includes a research component. Prerequisite: ACCT 4301 or concurrent registration.

ACCT 4305. Federal Tax Accounting. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The present income tax law and regulations; income tax legislation, treasury and court decisions, departmental rulings; income tax problems and returns, social security, and self-employment taxes. Credit for both ACCT 4305 and 5305 will not be awarded. Prerequisites: ACCT 2302 or approval of department head.

ACCT 4306. Federal Tax Accounting II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The tax consequences of doing business by corporations, partnerships, and S corporations from creation, to operating, distribution, and dissolution are discussed. Furthermore, the impact of transactions on corporations and shareholders, the partnership and its partners is emphasized throughout the course. Fiduciary relationships are also discussed. Prerequisite: ACCT 4305.

ACCT 4315. Taxation of Gifts and Estates. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is intended to provide students with a general understanding of the fundamental principles of the United States estate and gift tax system. Students will (i) learn basic principles and concepts of estate planning, (ii) learn the theoretical basis of the U.S. approach to estate and gift taxation and (iii) gain detailed knowledge of estate and gift tax issues. In addition, the course will prepare students to anticipate, recognize, and manage various issues that arise in the transfer tax system. Prerequisite: ACCT 2302.

ACCT 4323. Ethics for Professional Accountants. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Explores ways for an accountant to integrate ethical behavior into professional life. Includes a study of ethical behavior and decision-making. Also examines of various professional accountancy codes of conduct with an emphasis on ethical reasoning, integrity, objectivity, independence, and ethical lapses. Prerequisite: ACCT 3304 or concurrent enrollment.

ACCT 4324. Auditing Evidence and Report. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Procedures used by auditors and accounting practitioners to gather and evaluate information and report on their findings. Includes evaluation of internal control, planning an audit or other engagement, compliance testing, substantive testing, statistical sampling, evaluation of findings, and preparation of reports. Credit for both ACCT 4324 and ACCT 5324 will not be permitted by the College of Business Administration (the topics covered in these two courses are equivalent from a Texas State Board of Public Accounting standpoint). Prerequisite: ACCT 3304 or equivalent.

ACCT 4325. Fraud Examination. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will cover the current impact of fraud in the workplace, types of fraud schemes, how to prevent fraud in the workplace; how fraud is detected and investigated, and legal aspects of fraud. Prerequisite: ACCT 2302 or 3300.

ACCT 4352. Construction Cost Control. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides an in-depth study of accounting principles and practices specific to the construction industry. Students will learn how to apply accounting concepts and techniques to construction projects, including cost estimation, budgeting, financial reporting, and project analysis. Emphasis will be placed on understanding the unique challenges and requirements of construction accounting, as well as the role of accounting in project management. NOTE: Students may not receive credit for both this course and ACCT 3300. Also, students may not receive credit for both this course and ACCT 2302. This course does NOT count as an upper-level accounting course for purposes of the CPA designation. Prerequisite: CNST 3323; MATH 1352; MATH 1342; for CNST majors only.

ACCT 4385. Seminar. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of current issues and developments in accounting. Prerequisite: Approval of department head.

Business Courses

BUSI 1000. TCC Dual Admit. 0 Credit Hours (Lecture: 0 Hours, Lab: 0 Hours).

BUSI 1301. Business Principles. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides a survey of economic systems, forms of business ownership, and considerations for running a business. Students will learn various aspects of business, management, and leadership functions; organizational considerations; and decision-making processes. Financial topics are introduced, including accounting, money and banking, and securities markets. Also included are discussions of business challenges in the legal and regulatory environment, business ethics, social responsibility, and international business. Emphasized is the dynamic role of business in everyday life.

BUSI 1307. Personal Finance. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Personal and family accounts, budgets and budgetary control, bank accounts, charge accounts, borrowing, investing, insurance, standards of living, renting or home ownership, and wills and trust plans.

BUSI 2301. Business Law I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of the principles of law relating to law and ethics, the judicial system, constitution, tort and criminal law, law of sales, and commercial property.

BUSI 2305. Business Statistics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Descriptive and inferential statistical techniques for business and economic decision-making. Topics include the collection, description, analysis, and summarization of data; probability; discrete and continuous random variables; the binomial and normal distributions; sampling distributions; tests of hypotheses; estimation and confidence intervals; linear regression; and correlation analysis. Statistical software is used to analyze data throughout the course. Prerequisites: MATH 1324 Mathematics for Business & Social Sciences or MATH 1314 College Algebra and BCIS 1305 Business Computer Applications.

BUSI 3312. Business Communication. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
A study of effective communication, both verbal and written. Provides students the opportunity to gain practice in making decisions involving selection and organization of communication content, in choosing appropriate medium for presentation of information and developing effective business writing styles.

BUSI 4084. Internship. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 1-20 Hours).
Preapproved and supervised work experience in a business related position with a public or private business organization. May be repeated for a total of 6 hours credit. Prerequisite: Approval of Instructor and Department Head.

BUSI 4086. Business Problems. 1-3 Credit Hours (Lecture: 0 Hours, Lab: 1-3 Hours).
A directed study of selected problems in business. May be repeated with approval of the head of the Department. Prerequisites: Approval of Instructor and Department Head.

BUSI 4090. Special Topics in Business. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 1-3 Hours).
An examination of current topics in general business. Readings required from current general business publications and other related periodicals. May be repeated for credit when topics vary. Prerequisite: Approval of Instructor and Department Head.

BUSI 4314. Administrative Office Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Principles of office management, including planning, organizing, staffing, directing, and controlling are examined. Emphasis is placed on human relations, problem solving, leadership, and improved managerial performance, office procedures, talent requirements, and equipment needs.

BUSI 4344. Introduction to International Business. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Broad coverage of key concepts and issues in international business. Emphasis on the environment of international business and the operations of the multinational firm.

BUSI 4359. Business Strategy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
A capstone course involving the integration of concepts and principles studied in accounting, economics, finance, management, marketing, quantitative methods, and other relevant disciplines. Includes problem solving and business decision making. Designed to be taken by senior business majors during their last semester. Prerequisite: FINC 3301, BUSI 2305, MGMT 3300, MKTG 3312; or approval of department head.

BUSI 4385. Seminar in General Business. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of selected topics dealing with problems or unique needs of business. May be repeated for credit as topics vary. Prerequisite: Approval of Instructor and Department Head.

BUSI 4389. Global Business Practices. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of basic international business concepts, cultural literacy, and discipline specific content are then applied to practical experiences and activities related to the foreign country visited. A required study abroad at the student's expense is required. Student may complete a maximum of six hours of COBA sponsored study abroad toward degree completion. Field assignment fee of $50.

BUSI 4398. Professional Development in Applied Business. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A capstone course designed for students to synthesize the knowledge, skills, and attitude learned throughout the undergraduate applied business degree. Students will demonstrate their ability to articulate career pathways, contribute to the organizational structure of business/industry or other institutions, and examine strategies needed to make difficult decisions. Work may include individual/group research and critical reviews of existing bodies of knowledge.

Business Administration Courses

Business Law Courses

BLAW 4084. Internship. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 1-20 Hours).
Preapproved and supervised work experience in a business law related position with a public or private business organization. May be repeated for a total of 6 hours credit. Prerequisite: Approval of department head.

BLAW 4086. Problems. 1-3 Credit Hours (Lecture: 0 Hours, Lab: 1-3 Hours).
A directed study of selected problems in business law. May be repeated with approval of the head of the Department. Prerequisite: Approval of department head.

BLAW 4090. Special Topics in Business Law. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 1-3 Hours).
An examination of current topics in business law. Readings required from current business law publications and other related periodicals. May be repeated for credit when topics vary. Prerequisite: 9 hours in BLAW.

BLAW 4333. Business Law II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of the principles of law concerning agency, employment, partnerships, corporations, bankruptcy, secured transactions, creditor/debtor rights, insurance, real and personal property, laws impacting the regulatory environment of business such as consumer protection, environment, anti-trust, and securities law.

BLAW 4334. Employment Law. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the laws relating to employment. Includes defining the employer-employee relationship; regulation of discriminatory practices in employment (Title VII, the 1964 Civil Rights Act, and other statutes); regulation of the employment environment; and testing and evaluation of employee job performance.

BLAW 4384. International Business Law. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of international commercial business and the legal environment within which it operates. The study of traditional international concepts of treaties, sovereignty, public and private laws, customs laws, licensing, franchising, environmental and employment law. Special emphasis on contracts for international sale of goods (CISG), GATT and WTO Treaties, NAFTA, regional trade areas. Credit for both BLAW 4384 and BLAW 5384 will not be awarded.

BLAW 4385. Seminar in Business Law. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of selected topics dealing with problems or unique needs of business law. May be repeated for credit as topics vary. Prerequisite: Approval from department head.

Economics Courses

ECON 1301. Introduction To Economics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is a survey of microeconomic and macroeconomic principles for non-business majors. In this course, students are encouraged to use their common sense to understand economic principles and applications. Microeconomic topics will include supply and demand, consumer behavior, price and output decisions by firms under various market structures, factor markets, market failures, international trade, and exchange rates. Macroeconomic topics will include national income, unemployment, inflation, business cycles, aggregate supply and demand, monetary and fiscal policy, and economic growth.

ECON 2301. Principles of Macroeconomics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course focuses on the aggregate or overall economy. Topics include the measurement and determination of economic aggregates such as Aggregate Demand and Aggregate Supply, national income, inflation, and unemployment. Other topics include international trade, economic growth, business cycle, fiscal policy, and monetary policy. Prerequisites: MATH 1314, MATH 1332, MATH 1324, MATH 2412, MATH 2413, MATH 1342, or concurrent enrollment, or approval of department head.

ECON 2302. Principles of Microeconomics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Analyzes the behavior of individual economic agents, including consumer behavior and demand, producer behavior and supply, and price and output decisions by firms under various market structures. Other topics include an in-depth study of resource factor markets, market failure, and international trade. Prerequisite: MATH 1314, MATH 1332, MATH 1324, MATH 2412, MATH 2413, MATH 1342, or concurrent enrollment, or approval of department head.

ECON 3301. Intermediate Macroeconomics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course extends the study of the aggregate economy introduced in Economics 2301 with emphasis on theory. Topics include the Classical and Keynesian systems, general equilibrium theories, economic growth, and public policy in a global setting. Prerequisite: ECON 2301.

ECON 3302. Intermediate Microeconomics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course represents a more advanced study of microeconomic theory than is possible in Economics 2302. Topics include consumer behavior, production and cost theory, market structure, and factor markets. Prerequisite: ECON 2302, or AGEC/AGRI 2317 or equivalent.

ECON 3303. Money And Banking. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the structure and functions of financial markets and financial intermediaries; the behavior and pattern of interest rates; the basic concepts of commercial bank management; the nature of money and the role of the Federal Reserve in its creation; the basic structure of the economy and the impact of monetary actions on this structure. Prerequisite: ECON 2301.

ECON 3304. Environmental Economics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of the economics of the natural environment. Economic tools and issues such as social cost, externalities, cost-benefit analysis, property rights, and state and federal environmental policies will be examined with emphasis on problems associated with water pollution, waste disposal, and society's burden of social costs. Prerequisite: 3 hours ECON or AGRI/AGEC 2317.

ECON 3305. Economics of Financial Markets. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the aggregate financial system and capital markets and the impact these have on financial intermediaries. Topics to be covered are: flow of funds analysis, interest rate theory, role of financial intermediaries, and management of financial assets. Credit for both FINC 3304 and ECON 3305 will not be awarded. Prerequisites: ECON 2301.

ECON 3306. Political Economy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the historical, philosophical, and theoretical relationships between the state and the economy. Credit for both POLS 3306 and ECON 3306 will not be awarded. Prerequisite: 3 hours of ECON.

ECON 4084. Internship. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 1-20 Hours).
Preapproved and supervised work experience in a Economics related position with a public or private business organization. May be repeated for a total of 6 hours credit. Prerequisite: Approval of department head.

ECON 4086. Problems. 1-3 Credit Hours (Lecture: 0 Hours, Lab: 1-3 Hours).
Independent reading, research and discussion. Entry into this course will be arranged with the Economics counselor. Prerequisites: Approval of department head.

ECON 4090. Special Topics in Economics. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 1-3 Hours).
An examination of current topics in economics. Readings required from current economics publications and other related periodicals. May be repeated for credit when topics vary. Prerequisite: Approval of department head.

ECON 4301. International Economics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introduction to international economic theory and policy, the foundations of modern trade theory and its extensions, welfare effects of tariffs and non-tariff barriers, commercial policies of the United States, trade policies of developing countries, multinationals, balance of payments, and foreign exchange markets. Credit for both ECON 4301 and AGEC 4302 will not be awarded. Prerequisite: 3 hours ECON or AGEC/AGRI 2317.

ECON 4302. Developmental Economics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introduction to theories of economic development. Much of the course focuses on the sources of economic growth, inequality, and poverty, and what “development” means beyond financial growth. Other topics include population growth, migration, human capital, agriculture, the environment, international trade and finance, and good governance. The twin concepts of market failure and government failure are seen throughout the course Prerequisite: Six hours of economics.

ECON 4311. Econometrics and Forecasting. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
Econometrics is the science of using statistics to estimate economic relationships, test theories, and evaluate the impacts of government and business policies. Econometrics is also used to forecast or predict how economic variables, stock prices, and other time-varying economic indicators behave. It is used not only in economics, but in fields as diverse as finance, marketing, political science, sociology, biology, and even comparative literature. This course is data-driven as students apply what they have learned in other courses to specific, testable research questions. Credit will not be granted for both ECON 4311 and Econ 5311. Prerequisites: ECON 2301, ECON 2302, and one of the following: BUSI 2305, MATH 3311, AGEC 3317, or MATH 1342.

ECON 4320. Health Care Economics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is intended to provide important background information surrounding the health care reform debate and address a spectrum of economic and policy issues impacting the health care industry. A basic overview of the health care industry emphasizing the economic issues affecting medical care delivery and finance is provided. The demand side and the supply side of the health care market are studied with the ultimate focus on the use of the technical tools of economics to address public policy issues. Emphasis is placed on the changing nature of health care and its implications for medical and health industry. Prerequisite: ECON 1301, 2301, OR 2302.

ECON 4385. Seminar in Economics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of selected topics dealing with problems or unique needs of Economics. May be repeated for credit as topics vary. Prerequisite: Approval from department head.

Finance Courses

FINC 3301. Principles of Financial Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An analysis of financial decision-making at the corporate level with emphasis on the maximization of stockholder wealth. Topics covered include financial statement analysis, the valuation of stocks and bonds, cost of capital, capital budgeting, leverage and capital structure, methods of firm valuation, and financial analysis using spreadsheets. Prerequisites: ACCT 2301, ACCT 2302 and ECON 2301; or ACCT 3300 and ECON 2301.

FINC 3302. Financial Intermediaries. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the internal operations of financial intermediaries with major emphasis on organization, source and allocation of funds, supervision, and regulation. Prerequisite: FINC 3301.

FINC 4084. Internship. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 1-20 Hours).
Preapproved and supervised work experience in a Finance related position with a public or private business organization. May be repeated for a total of 6 hours credit. Prerequisite: Approval of department head.

FINC 4086. Problems. 1-3 Credit Hours (Lecture: 0 Hours, Lab: 1-3 Hours).
A directed study of selected problems in finance. May be repeated with approval department head. Prerequisite: Approval of the department head.

FINC 4090. Special Topics in Finance. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 0 Hours).
An examination of current topics in finance. Readings required from current finance publications and other related periodicals. May be repeated for credit when topics vary. Prerequisite: 9 hours of FINC.

FINC 4300. Advanced Financial Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An advanced analysis of value-based management techniques with emphasis on the factors affecting the corporation's quest to maximize shareholder wealth. Topics covered include financial statement analysis, cash flow analysis, economic and market valued added, securities valuation, the cost of capital, capital budgeting, capital structure, dividend policy, the use of leverage, working capital management, and corporate governance. Prerequisite: FINC 3301.

FINC 4301. International Financial Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Issues and questions which concern financial management of international corporations. Analysis of the financing of investment abroad and the management of assets in differing financial environments. The foreign investments decision, cost of capital and financial structure for multinational decision making, management of foreign subsidiary working capital, and financial control of multinational operations. Prerequisite: FINC 3301 or approval of department head.

FINC 4302. Real Estate Finance. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of monetary systems, primary and secondary money markets, sources of mortgage loans, federal government programs, loan applications, processes and procedures, closing costs, alternative financial instruments, equal credit opportunity acts, community reinvestment act, and state housing agency.

FINC 4303. Case Studies in Finance. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
Capstone course requires students to use fundamental concepts learned in previous finance, accounting, and economics courses to analyze real-world finance problems. Using both structured and unstructured cases, student teams analyze problems and recommend solutions. Argument is presented both orally and in writing. Cases draw from such areas as corporate finance, investments, international finance, and personal finance. Prerequisite: FINC 3301.

FINC 4304. Investments I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The development of investment policy; the character of investment risk; a comparison of investment media; description and analysis of security markets and their operations. Prerequisite: FINC 3301.

FINC 4307. Investments II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course builds on Investments I, adding new assets (e.g. derivatives), new theoretical models (e.g. option valuation), and new techniques(e.g. hedging strategies). In addition, the course will cover asset management theories and measures. Prerequisite: FINC 3301, FINC 4304.

FINC 4308. Principles of Insurance and Risk Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A survey course focusing on the theory and practice of private insurance and its economic and social significance. Major types of insurance are examined: life, health, automotive, homeowners, and liability. Various forms of risk management, characteristics of insurance contracts, government regulatory characteristics, and institutional structures are studied.

FINC 4310. Professional Financial Planning. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Applies basic financial and economic models to council individuals, families, and business to achieve financial goals. Topics include the CFP™ code of ethics, fiduciary standards, needs analysis, credit management, retirement savings, income planning and the psychology of financial planning. Prerequisite: FINC 3301.

FINC 4380. Financial Planning Capstone. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Application of financial planning tools and process. Course includes the analysis of financial statements, presentations, case analysis and professional fiduciary conduct. This course is required in order to be eligible for the CFP™. Prerequisite: 12 hours of FINC classes or department head approval.

FINC 4385. Seminar in Finance. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of selected topics dealing with problems or unique needs of Finance. May be repeated for credit as topics vary. Prerequisite: Approval from department head.

Real Estate Courses

REST 4084. Internship. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 1-20 Hours).
Preapproved and supervised work experience in a Real Estate related position with a public or private business organization. May be repeated for a total of 6 hours credit. Prerequisite: Approval of department head.

REST 4086. Problems. 1-3 Credit Hours (Lecture: 0 Hours, Lab: 1-3 Hours).
A directed study of selected problems in Real Estate. May be repeated with approval of the head of the Department. Prerequisite: Approval of department head.

REST 4090. Special Topics in Real Estate. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 1-3 Hours).
An examination of current topics in real estate. Readings required from current real estate publications and other related periodicals. May be repeated for credit when topics vary. Prerequisite: 9 hours of REST.

REST 4303. Texas Real Estate Agency Law. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of agency concepts, basic agency relationships, disclosure and duties to client, disclosure and duties to third parties, creation and termination of the agency relationship, seller agency, subagency, buyer agency, representing more than one party in a transaction, dual agency, intermediary brokerage, single agency, clarifying agency relationships, employment issues, Deceptive Trade Practices and Consumer Protection Act, selected statutes and TREC rules, ethical and legal responsibilities.

REST 4304. Principles of Real Estate I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of licensing as a real estate broker and salesperson, distinctions between real and personal property, the real estate market, concepts of home ownership, real estate brokerage and the law of agency, fair housing laws and ethical practices, Real Estate License Act, interests in real estate, how ownership is held, legal descriptions, encumbrances and liens.

REST 4305. Principles of Real Estate II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of licensing as a real estate broker and salesperson, ethics of practice, titles to the conveyancing of real estate, legal descriptions, law of agency, deeds, encumbrances and liens, distinctions between personal and real property, contracts, appraisal, finance and regulations, closing procedures, and real estate mathematics.

REST 4306. Texas Real Estate Contracts. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the Texas Real Estate License Act (TRELA) and the Rules of the Texas Real Estate Commission, the contract and other promulgated contracts and associated forms, obtaining a real estate loan, property descriptions, estimating seller net and buyer move-in.

REST 4307. Real Estate Law. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Study of legal concepts of real estate, land description, real property rights and estates in land, contracts, conveyances, encumbrances, foreclosures, recording procedures, and evidence of titles.

REST 4308. Real Estate Brokerage. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of real estate brokerage office, planning and organization, operational policies and procedures, law of agency, recruiting, selection and training of personnel records and control, real estate firm analysis and expansion criteria.

REST 4309. Real Estate Appraisal. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the central purposes and functions of an appraisal, social and economic determinant of value, appraisal of case studies, cost, market data and income approaches to value estimates, final correlations, and reporting.

REST 4385. Seminar in Real Estate. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of selected topics dealing with problems or unique needs of Real Estate. May be repeated for credit as topics vary. Prerequisite: Approval from department head.

Department of Management

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Welcome to the Management Department at Tarleton State University! Our department is dedicated to providing a dynamic and inclusive learning environment that equips students with the skills and knowledge needed for leadership roles in various organizations. With a focus on excellence, innovation, and practical application, we prepare students to navigate the complexities of the business world and achieve their professional goals. The department offers six undergraduate degree programs. Our traditional degree programs include:

- Bachelor of Business Administration (BBA) in Management
- Bachelor of Business Administration (BBA) in Human Resource Management
- Bachelor of Business Administration (BBA) in General Business
- Bachelor of Business Administration (BBA) in International Business

The BAAS and BSAS programs are designed for learners who have completed technical/occupational specializations from community colleges, technical schools, and military schools, among others, and qualify for admission. Additional information regarding these two programs is available on the Department Webpage.

- Bachelor of Applied Arts and Science (BAAS) degree in Business Occupations
- Bachelor of Science in Applied Science (BSAS) degree with a Business Administration emphasis

Bachelor of Business Administration in Management

The Bachelor of Business Administration in Management program at Tarleton State University is designed to equip students with the essential knowledge and skills to lead effectively in diverse business environments. This program combines a strong foundation in business principles with specialized courses in management, including human resource management, organizational behavior, and business ethics. Students can customize their education with concentrations such as General Management or Small Business/Entrepreneurship, focusing on areas like leadership, project management, and entrepreneurship. Graduates are well-prepared for careers in corporate management, small business ownership, or international business. With flexible course options, hands-on learning opportunities like internships, and a curriculum aligned with industry demands, this program offers the tools to excel in today's dynamic business world. Explore this pathway to unlock your leadership potential and drive innovation.

General Education Requirements (p. 396)		42
Select one of the following (shared with the General Education Core)		
MATH 1314	College Algebra	
MATH 1324	Math for Business & Social Sciences I (Finite Mathematics)	
MATH 1332	Contemporary Mathematics I	
MATH 1342	Elementary Statistical Methods	
MATH 2412	Precalculus Math	
MATH 2413	Calculus I	
Common Business Core and Major Specific Requirements [1]		
BCIS 1305	Business Computer Applications	3
BUSI 1301	Business Principles	3
Select one of the following:		3-4
MATH 1316	Plane Trigonometry	
MATH 1324	Math for Business & Social Sciences I (Finite Mathematics)	
MATH 1325	Math for Business & Social Sciences II (Business Calculus)	
MATH 2412	Precalculus Math	
MATH 2413	Calculus I	
ACCT 2301	Principles of Accounting I-Financial	3
ACCT 2302	Principles of Accounting II-Managerial	3
BUSI 2301	Business Law I	3
BUSI 2305	Business Statistics	3
ECON 2301 [shared]	Principles of Macroeconomics	
ECON 2302	Principles of Microeconomics	3
BUSI 3312 [WI (p. 396)]	Business Communication	3
FINC 3301	Principles of Financial Management	3
MGMT 3300	Principles of Management	3
MKTG 3312	Marketing	3
BCIS 4350	Management Information Systems	3
BUSI 4344	Introduction to International Business	3
BUSI 4359 [WI (p. 396)]	Business Strategy	3
Major Specific Courses [1]		
MGMT 3302	Human Resource Management	3
MGMT 3350	Organization Behavior	3
MGMT 4307 [WI (p. 396)]	Business Ethics	3
MGMT 4321	Production and Operations Management	3
Elective(s)		
Elective		9
Total Hours		**108**

General Management

Select 12 Hours from:		12
MGMT 3304	Small Business Management	
MGMT 3325	Leadership	

MGMT 4084	Internship	
MGMT 4086	Problems	
MGMT 4090	Special Topics in Management	
MGMT 4303	Strategic Compensation	
MGMT 4304	Staffing Organizations	
MGMT 4305	Human Resource Development	
MGMT 4306	Employee and Labor Relations	
MGMT 4308	Negotiation & Conflict Resolution	
MGMT 4312	Entrepreneurship	
MGMT 4315	Project Management	
MGMT 4320	International Entrepreneurship	
MGMT 4323	Innovation and Creativity in Business	
MGMT 4325	Trends and Issues in Entrepreneurship	
MGMT 4354	International Management	
MGMT 4385	Seminar in Management	
MGMT 4389	Global Management Practices	
Total Hours		**12**

Small Business /Entrepreneurship

MGMT 3304	Small Business Management	3
Select Nine (9) Hours from:		9
MGMT 4312	Entrepreneurship	
MGMT 4320	International Entrepreneurship	
MGMT 4323	Innovation and Creativity in Business	
MGMT 4325	Trends and Issues in Entrepreneurship	
Total Hours		**12**

Bachelor of Business Administration in Human Resources Management

The Bachelor of Business Administration (BBA) in Human Resources Management prepares students to lead in managing organizational talent and fostering workplace effectiveness. This program blends essential business education—including accounting, economics, and financial management—with specialized HR coursework. Students study topics such as employment law, strategic compensation, staffing, training, employee relations, and diversity management. With additional electives in leadership, global management, and project management, the curriculum provides practical and theoretical knowledge to address real-world HR challenges. Graduates will develop critical skills for recruiting, developing, and retaining top talent, making them valuable assets in any organization. Launch your career in human resources today and become a leader in building and sustaining a thriving workforce.

General Education Requirements (p. 396)		42
Select one of the following (shared with the General Education Core)		
MATH 1314	College Algebra	
MATH 1324	Math for Business & Social Sciences I (Finite Mathematics)	
MATH 1332	Contemporary Mathematics I	
MATH 1342	Elementary Statistical Methods	
MATH 2412	Precalculus Math	
MATH 2413	Calculus I	
Common Business Core and Major Specific Requirements		
BCIS 1305	Business Computer Applications	3
BUSI 1301	Business Principles	3
Select one of the following:		3-4
MATH 1316	Plane Trigonometry	
MATH 1324	Math for Business & Social Sciences I (Finite Mathematics)	
MATH 1325	Math for Business & Social Sciences II (Business Calculus)	
MATH 2412	Precalculus Math	
MATH 2413	Calculus I	
ACCT 2301	Principles of Accounting I-Financial	3
ACCT 2302	Principles of Accounting II-Managerial	3
BUSI 2301	Business Law I	3
BUSI 2305	Business Statistics	3
ECON 2301 [shared]	Principles of Macroeconomics	
ECON 2302	Principles of Microeconomics	3
BUSI 3312 [WI (p. 396)]	Business Communication	3
FINC 3301	Principles of Financial Management	3
MGMT 3300	Principles of Management	3
MKTG 3312	Marketing	3
BCIS 4350	Management Information Systems	3
BUSI 4344	Introduction to International Business	3
BUSI 4359 [WI (p. 396)]	Business Strategy	3
Major Specific Courses		
PSYC 2301	General Psychology [2]	3

MGMT 3302	Human Resource Management	3
MGMT 3350	Organization Behavior	3
BLAW 4334	Employment Law	3
MGMT 4303	Strategic Compensation	3
MGMT 4304	Staffing Organizations	3
MGMT 4305	Human Resource Development	3
MGMT 4306	Employee and Labor Relations	3
Select two of the following:		6
MGMT 3325	Leadership	
MGMT 4084	Internship	
MGMT 4307 [WI (p. 396)]	Business Ethics	
MGMT 4308	Negotiation & Conflict Resolution	
MGMT 4315	Project Management	
MGMT 4354	International Management	
MGMT 4389	Global Management Practices	
Elective(s)		
Elective		3
Total Hours		**120**

Bachelor of Business Administration in General Business

The Bachelor of Business Administration (BBA) in General Business offers students a flexible and comprehensive foundation in business education, preparing them for diverse career opportunities across industries. This program covers essential core areas such as management, marketing, accounting, finance, and business law, ensuring a well-rounded business education. Students have the freedom to customize their learning experience by choosing **24 hours of advanced electives**, allowing them to align their studies with personal career goals and interests. With an emphasis on strategic thinking, communication, and decision-making, the BBA in General Business is ideal for those who value adaptability and versatility in their professional journey. Whether pursuing leadership roles, entrepreneurship, or graduate studies, this program equips students with the skills needed to succeed in today's dynamic business environment.

General Education Requirements (p. 396)		42
Select one of the following (shared with the General Education Core)		
MATH 1314	College Algebra	
MATH 1324	Math for Business & Social Sciences I (Finite Mathematics)	
MATH 1332	Contemporary Mathematics I	
MATH 1342	Elementary Statistical Methods	
MATH 2412	Precalculus Math	
MATH 2413	Calculus I	
Common Business Core and Major Specific Requirements [1]		
BCIS 1305	Business Computer Applications	3
BUSI 1301	Business Principles	3
Select one of the following:		3-4
MATH 1316	Plane Trigonometry	
MATH 1324	Math for Business & Social Sciences I (Finite Mathematics)	
MATH 1325	Math for Business & Social Sciences II (Business Calculus)	
MATH 2412	Precalculus Math	
MATH 2413	Calculus I	
ACCT 2301	Principles of Accounting I-Financial	3
ACCT 2302	Principles of Accounting II-Managerial	3
BUSI 2301	Business Law I	3
BUSI 2305	Business Statistics	3
ECON 2301 [shared]	Principles of Macroeconomics	
ECON 2302	Principles of Microeconomics	3
BUSI 3312 [WI (p. 396)]	Business Communication	3
FINC 3301	Principles of Financial Management	3
MGMT 3300	Principles of Management	3
MKTG 3312	Marketing	3
BCIS 4350	Management Information Systems	3
BUSI 4344	Introduction to International Business	3
BUSI 4359 [WI (p. 396)]	Business Strategy	3
Major Specific Course(s)		
MGMT 3302	Human Resource Management	3
Elective(s)		
Advanced Electives		15
Electives		15
Total Hours		**120**

Bachelor of Business Administration in International Business

The Bachelor of Business Administration (BBA) in International Business prepares students to excel in the global marketplace by providing them with a strong foundation in core business disciplines and specialized knowledge in international operations. This program covers key topics such as international economics, global financial management, international marketing, and supply chain logistics. Students also gain insight into cultural diversity, global business law, and international management strategies.

To enhance global competency, students can choose advanced coursework in areas like foreign languages, international politics, global entrepreneurship, and world religions. With opportunities to specialize through internships and electives, this program equips graduates with the skills needed to navigate complex international markets and adapt to diverse cultural and economic environments. Ideal for those aspiring to roles in multinational corporations, global trade, and international entrepreneurship, this program is your gateway to a dynamic and rewarding career in the global economy.

General Education Requirements (p. 396)		42
Select one of the following (shared with the General Education Core)		
MATH 1314	College Algebra	
MATH 1324	Math for Business & Social Sciences I (Finite Mathematics)	
MATH 1332	Contemporary Mathematics I	
MATH 1342	Elementary Statistical Methods	
MATH 2412	Precalculus Math	
MATH 2413	Calculus I	
Common Business Core and Major Specific Requirements		
BCIS 1305	Business Computer Applications	3
BUSI 1301	Business Principles	3
Select one of the following:		3-4
MATH 1316	Plane Trigonometry	
MATH 1324	Math for Business & Social Sciences I (Finite Mathematics)	
MATH 1325	Math for Business & Social Sciences II (Business Calculus)	
MATH 2412	Precalculus Math	
MATH 2413	Calculus I	
ACCT 2301	Principles of Accounting I-Financial	3
ACCT 2302	Principles of Accounting II-Managerial	3
BUSI 2301	Business Law I	3
BUSI 2305	Business Statistics	3
ECON 2301 [shared]	Principles of Macroeconomics	
ECON 2302	Principles of Microeconomics	3
BUSI 3312 [WI (p. 396)]	Business Communication	3
FINC 3301	Principles of Financial Management	3
MGMT 3300	Principles of Management	3
MKTG 3312	Marketing	3
BCIS 4350	Management Information Systems	3
BUSI 4344	Introduction to International Business	3
BUSI 4359 [WI (p. 396)]	Business Strategy	3
Major Specific Courses		
BLAW 4384	International Business Law	3
ECON 4301	International Economics	3
FINC 4301	International Financial Management	3
MGMT 4354	International Management	3
MKTG 4314	Supply Chain and Logistics Concepts	3
MKTG 4354	International Marketing	3
Select Six (6) Advanced Hours from the following:		6
Foreign Language		
BUSI 4389	Global Business Practices	
ENGL 3344 [WI (p. 396)]	Readings in World Literature	
MGMT 4084	Internship	
MGMT 4320	International Entrepreneurship	
MGMT 4389	Global Management Practices	
MKTG 4084	Internship	
MKTG 4389	Global Marketing Practices	
PHIL 3304	World Religions: Theory, Origins, & Practices	
POLS 3301	Political Economy of Globalization	
POLS 3308 [WI (p. 396)]	International Politics	
POLS 3314	Comparative Politics	
Elective(s)		
Elective(s)		9
Total Hours		**120**

Bachelor of Applied Arts and Sciences in Business

The Bachelor of Applied Arts and Sciences (BAAS) in Business is designed for students with diverse educational and professional backgrounds who want to advance their careers in business. This program provides a flexible and practical pathway to complete a bachelor's degree by integrating prior learning credits with essential business education. Students build competencies in key areas like business communication, management, marketing, and finance, complemented by advanced electives to customize their learning. With a focus on applied skills and real-world problem-solving, the BAAS in Business is ideal for working professionals or transfer students looking to enhance their career prospects. Discover a streamlined approach to achieving your academic and career goals with the BAAS in Business.

General Education Requirements (p. 396)		42
Select one of the following (shared with the General Education Core)		
MATH 1314	College Algebra	
MATH 1324	Math for Business & Social Sciences I (Finite Mathematics)	

MATH 1332	Contemporary Mathematics I	
MATH 1342	Elementary Statistical Methods	
MATH 2412	Precalculus Math	
MATH 2413	Calculus I	
Common Business Core and Major Specific Requirements		
BCIS 1305	Business Computer Applications	3
BUSI 2301	Business Law I	3
BUSI 2305	Business Statistics	3
ECON 2301 [shared]	Principles of Macroeconomics	
ACCT 3300	Accounting Concepts	3
BUSI 3312 [WI (p. 396)]	Business Communication	3
FINC 3301	Principles of Financial Management	3
MGMT 3300	Principles of Management	3
MKTG 3312	Marketing	3
BUSI 4344	Introduction to International Business	3
BCIS 4350	Management Information Systems	3
BUSI 4359 [WI (p. 396)]	Business Strategy	3
Advanced Electives		6
Credit for Prior Learning Component (Must total 39 hours):		
Credit for Prior Learning		12-39
Elective(s)		0-27
Total Hours		**120**

Bachelor of Science in Applied Science

The Bachelor of Science in Applied Science (BSAS) provides a flexible and interdisciplinary pathway for students to advance their education and career prospects. This program builds on prior learning and focuses on applied skills and real-world knowledge. With options to specialize in **Business Administration** or **Psychological Sciences**, students can tailor their degree to match their interests and professional goals.

- **Business Administration Concentration**: Prepares students for leadership roles in business by combining core courses in business communication, human resource management, and organizational behavior with advanced electives in accounting, finance, marketing, and management. This concentration is ideal for aspiring professionals seeking a strong foundation in business ethics, professional development, and strategic decision-making.
- **Psychological Sciences Concentration**: Offers an in-depth exploration of human behavior and cognitive processes. Students gain knowledge in research methods, statistics, learning psychology, and the history of psychology, preparing them for careers in psychology, research, or counseling.

With a mix of general education, prior learning credits, and specialized coursework, the BSAS program provides a clear path to a degree for transfer students and working professionals. Whether aiming for business leadership or psychological expertise, the BSAS offers the tools and knowledge to succeed.

General Education Requirements (p. 396)	42
Total Hours	**42**

Accounting

Major Specific Requirements for the Accounting Concentration		
BCIS 1305	Business Computer Applications	3
BUSI 2301	Business Law I	3
BUSI 2305	Business Statistics	3
ECON 2301 [shared]	Principles of Macroeconomics	
ECON 2302	Principles of Microeconomics	3
ACCT 3300	Accounting Concepts	3
ACCT 3302	Cost/Management Accounting	3
ACCT 3303	Intermediate Accounting I	3
ACCT 3304	Intermediate Accounting II	3
ACCT 3310	Accounting Information Systems	3
BUSI 3312 [WI (p. 396)]	Business Communication	3
FINC 3301	Principles of Financial Management	3
MGMT 3300	Principles of Management	3
MKTG 3312	Marketing	3
BCIS 4350	Management Information Systems	3
BLAW 4333	Business Law II	3
BUSI 4359 [WI (p. 396)]	Business Strategy	3
Credit for Prior Learning Component (Must total 30 hours):		
Credit for Prior Learning		12-30
Electives		0-18
Total Hours		**78**

Business Administration

Major Specific Requirements for the Business Administration Concentration		
BUSI 3312 [WI (p. 396)]	Business Communication	3
BUSI 4398	Professional Development in Applied Business	3
MGMT 3302	Human Resource Management	3
MGMT 3350	Organization Behavior	3

MGMT 4307 [WI (p. 396)]	Business Ethics	3
Advanced Business Electives from: ACCT, ADMS, BCIS, ECON, FINC, BUSI, BLAW, REST, MGMT, MKTG		9
Advanced Electives		6
Credit for Prior Learning Component (Must total 48 hours):		
Credit for Prior Learning		12-48
Electives		0-36
Total Hours		**78**

Business Minor

The Business Minor is a versatile program designed to complement any major and equip students with foundational business knowledge applicable to a wide range of careers. This minor requires 18 total credit hours, including 12 hours of coursework and 6 advanced hours from disciplines such as accounting, economics, finance, marketing, management, and business law.

Students not pursuing a business degree but planning to pursue an MBA, MS-HRM, or MACC are encouraged to select courses that fulfill graduate program leveling requirements. This proactive approach can significantly reduce or eliminate additional coursework needed for these graduate programs. For guidance on course selection tailored to your future goals, consult with our Graduate Advisors.

The Business Minor is an excellent opportunity to develop essential business skills, enhance career versatility, and prepare for advanced studies.

Coursework: from: ADMS, ACCT, BCIS, ECON, FINC, BUSI/BLAW/REST, MGMT or MKTG [1]	12
Advanced hours from: ADMS, ACCT, BCIS, ECON, FINC, BUSI/BLAW/REST, MGMT or MKTG	6
Total Hours	**18**

NOTE: If you are not pursuing a business degree but are interested in pursuing an MBA, MS-HRM, or MACC, you should review the Leveling Requirements described later on this page for consideration of classes to take as part of your minor in order to reduce/eliminate leveling classes required for your graduate programs. Reach out to our Graduate Advisors (https://www.tarleton.edu/cob/graduate-advising/) if you have more questions.

Leveling Requirements

If your undergraduate degree is not in business (e.g., not a Bachelor of Business Administration), and you are interested in pursuing a graduate degree in business such as the Master of Accountancy (MACC), Master of Business Administration (MBA), or Master of Science in Human Resource Management (MS-HRM), it is recommended to complete the following courses (or their equivalents) as part of your undergraduate Business Minor to satisfy Graduate Leveling Requirements:

Core Leveling Requirements:

- **Management**: Any business MGMT course *Recommended*: MGMT 3300 – Principles of Management
- **Financial Accounting**: *Options*:
  - ACCT 3300 – Accounting Concepts (preferred for non-business majors)
  - ACCT 2301 and ACCT 2302 – Principles of Accounting I and II
- **Finance**: FINC 3301 – Principles of Finance
- **Business Statistics**: BUSI 2305 – Business Statistics
- **Economics**: ECON 2302 – Microeconomics
- **Marketing**: Any business MKTG course *Recommended*: MKTG 3312 – Marketing

Additional Requirements for the Master of Accountancy (MACC):

If pursuing the MACC, the following additional courses (or equivalents) are recommended to satisfy accounting-specific leveling requirements:

- **ACCT 2301** – Principles of Accounting I – Financial
- **ACCT 2302** – Principles of Accounting II – Managerial
- **ACCT 3303** – Intermediate Accounting I
- **ACCT 3304** – Intermediate Accounting II
- **Any two of the following**:
  - ACCT 3302 – Cost Accounting
  - BUSI 2311 – Business Statistics
  - ECON 2301 – Principles of Macroeconomics
  - ECON 4301 – International Economics
  - FINC 3301 – Principles of Finance

Completing these courses during your undergraduate studies will reduce or eliminate the need for additional leveling courses when you begin your graduate program, helping you accelerate your progress toward an advanced business degree. For tailored guidance, consult with a graduate advisor.

Other Information

- **Academic Appeals Process**: Tarleton's Dr. Sam Pack College of Business adheres to the university's policies on academic appeals. Students experiencing academic grievances should consult the **Satisfactory Academic Performance** section on the Student Services and Resources (https://www.tarleton.edu/cob/student-services-and-resources/) page. This resource provides clear guidance on the steps for addressing and resolving academic concerns. For further assistance, students are encouraged to contact the appropriate university support services.
- **Netiquette (https://www.tarleton.edu/cob/netiquette/):** Learners are expected to communicate respectfully, respond promptly, and actively participate in discussions and group activities to ensure a collaborative and effective learning environment.
- **Minimum Technology Requirements (https://www.tarleton.edu/cob/minimum-technology-requirements/):** Students enrolled in programs within Tarleton's AACSB-accredited Dr. Sam Pack College of Business must meet minimum technology requirements to ensure seamless access to course materials and online learning activities. Requirements include a reliable computer, high-speed internet connection, and standard productivity software such as Microsoft Office. Additional recommendations may include specific software or tools relevant to the program, as outlined in advising guides or course syllabi. For further assistance, students can access university technical support services.
- **Computer Skills and Digital Information Literacy Skills (https://www.tarleton.edu/cob/computer-skills-and-digital-information/):** To succeed in your courses course, students should possess essential skills such as time management, critical thinking, effective communication, and basic technical proficiency relevant to the course content.

- **Vendor Privacy Statements (https://www.tarleton.edu/cob/vendor-privacy-statements/):** Students are encouraged to review the privacy policies of tools used in your courses to understand how their data is managed. Use of these tools implies agreement with their terms.
- **Technical Support (https://www.tarleton.edu/cob/technical-support/):** For technical support with tools used in your courses, refer to the vendor support resources provided for troubleshooting and assistance. These resources offer guidance to resolve common issues effectively.
- **Accessibility Support (https://www.tarleton.edu/cob/accessibility-support/):** For accessibility support services related to tools used in your courses, visit the vendor accessibility pages provided to ensure inclusive and equitable access. These resources address common accessibility concerns and offer assistance.
- **Academic Support Services (https://www.tarleton.edu/cob/academic-support-services/):** Tarleton's Dr. Sam Pack College of Business offers various academic support services to help students succeed, including orientations for undergraduate and graduate programs, library services, the Math Achievement Center, the Writing Center, and the Tutoring and Learning Center. These resources provide personalized support, from enhancing writing skills to developing effective learning techniques.
- **Student Services and Resources (https://www.tarleton.edu/cob/student-services-and-resources/):** Tarleton's Dr. Sam Pack College of Business offers a wide range of resources to support student success, including academic advising, registration guidance, financial aid assistance, and counseling services. Additional support includes tools for scholarships, veteran services, and career development, with specialized resources like internships and student organizations to enhance professional growth.
- **Vendor Accessibility Statements (https://www.tarleton.edu/cob/vendor-accessibility-statements/):** The Dr. Sam Pack College of Business is committed to providing accessible technology for all students. Accessibility statements for all required technologies used in COB courses, including tools like Canvas, Adobe, Microsoft, Pearson products, and Zoom, are available to ensure equitable access. These statements outline the accessibility features and accommodations provided by each vendor to support an inclusive learning environment.
- **Undergraduate Online Orientation (https://tarleton.instructure.com/courses/19004/):** The Undergraduate Online Orientation introduces new graduate students to the resources, expectations, and academic culture of the Dr. Sam Pack College of Business (DSPCOB). This self-paced program covers key aspects of graduate studies, including navigating the online learning environment, utilizing university services like the library and writing center, and understanding program policies and procedures. Orientation ensures that students feel confident and prepared to succeed in their academic journey.
- **Undergraduate Course Rotations and Advising Guides (https://www.tarleton.edu/majorinfo/):** Undergraduate Course Rotations provide a structured schedule of when specific graduate courses are offered across semesters. This information helps students plan their academic paths efficiently, ensuring they can meet degree requirements within their desired timeline. Rotations typically detail which courses are available in the fall, spring, and summer semesters and indicate whether they are offered online, in-person, or in hybrid formats. Similarly, Advising Guides help provide learners with guidance as they plan out course sequencing for their program.
- **DSPCOB Syllabi (https://tarleton.simplesyllabus.com/en-US/syllabus-library/?organization_id=959fb73a-4c87-429b-b594-b6478f07c5b2):** The DSPCOB Syllabi repository gives students access to detailed course syllabi for all graduate and undergraduate programs within the college. Each syllabus outlines the course objectives, topics covered, grading criteria, required materials, and policies on academic integrity, attendance, and participation. The syllabi serve as a roadmap for academic success, offering clarity on expectations and resources for each course.
  - DSPCOB Syllabi Repository (https://tarleton.sharepoint.com/:f:/s/COBA-CollegeofBusinessAdministration/EmCXrId_dflHuYGPgq8EwJIBdOYJhbXS9ewutrtVFGbR-A/?e=Eom9Kh) (Syllabi prior to the implementation of Simple Syllabus implemented for Spring 2025)

Questions?

Have more questions? Reach out to one of our advisors at DSPCOB Undergraduate Advisors (https://www.tarleton.edu/cob/undergraduate-advising/)!

Professors

- Baeza, Dr. Miguel
- Cavazos, Dr. David
- Collins, Dr. Jamie
- Freed, Dr. Rusty
- Hall, Dr. Reggie
- Heller, Dr. Jake
- Heller, Dr. Nathan
- Joiner, Dr. Sue
- Martinson, Dr. Brian

Associate professors

- Ashton, Dr. Triss
- Brown, Dr. Bryn
- Dinulescu, Dr. Catalin
- Dittfurth, Dr. Ed
- Krueger, Dr. Dianna
- Mullens, Dr. Drake
- Shaw, Dr. Joanna

Assistant professors

- Foster, Ms. Christi
- Rana, Dr. Rishabh

Instructor

- Brown, Ms. Angelia
- Dummar, Mr. Joe
- Leaverton, Mr. John "Bill"

Administration Courses

ADMS 1305. Intermediate Keyboarding. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Students will master the alpha-numeric computer keyboard by touch, with attention to accuracy and the correct formatting of business documents such as letters, memorandums, formal reports, forms, and other business correspondence. Prerequisite: Beginning typewriting in high school or college.

Business Courses

BUSI 1000. TCC Dual Admit. 0 Credit Hours (Lecture: 0 Hours, Lab: 0 Hours).

BUSI 1301. Business Principles. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides a survey of economic systems, forms of business ownership, and considerations for running a business. Students will learn various aspects of business, management, and leadership functions; organizational considerations; and decision-making processes. Financial topics are introduced, including accounting, money and banking, and securities markets. Also included are discussions of business challenges in the legal and regulatory environment, business ethics, social responsibility, and international business. Emphasized is the dynamic role of business in everyday life.

BUSI 1307. Personal Finance. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Personal and family accounts, budgets and budgetary control, bank accounts, charge accounts, borrowing, investing, insurance, standards of living, renting or home ownership, and wills and trust plans.

BUSI 2301. Business Law I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of the principles of law relating to law and ethics, the judicial system, constitution, tort and criminal law, law of sales, and commercial property.

BUSI 2305. Business Statistics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Descriptive and inferential statistical techniques for business and economic decision-making. Topics include the collection, description, analysis, and summarization of data; probability; discrete and continuous random variables; the binomial and normal distributions; sampling distributions; tests of hypotheses; estimation and confidence intervals; linear regression; and correlation analysis. Statistical software is used to analyze data throughout the course. Prerequisites: MATH 1324 Mathematics for Business & Social Sciences or MATH 1314 College Algebra and BCIS 1305 Business Computer Applications.

BUSI 3312. Business Communication. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
A study of effective communication, both verbal and written. Provides students the opportunity to gain practice in making decisions involving selection and organization of communication content, in choosing appropriate medium for presentation of information and developing effective business writing styles.

BUSI 4084. Internship. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 1-20 Hours).
Preapproved and supervised work experience in a business related position with a public or private business organization. May be repeated for a total of 6 hours credit. Prerequisite: Approval of Instructor and Department Head.

BUSI 4086. Business Problems. 1-3 Credit Hours (Lecture: 0 Hours, Lab: 1-3 Hours).
A directed study of selected problems in business. May be repeated with approval of the head of the Department. Prerequisites: Approval of Instructor and Department Head.

BUSI 4090. Special Topics in Business. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 1-3 Hours).
An examination of current topics in general business. Readings required from current general business publications and other related periodicals. May be repeated for credit when topics vary. Prerequisite: Approval of Instructor and Department Head.

BUSI 4314. Administrative Office Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Principles of office management, including planning, organizing, staffing, directing, and controlling are examined. Emphasis is placed on human relations, problem solving, leadership, and improved managerial performance, office procedures, talent requirements, and equipment needs.

BUSI 4344. Introduction to International Business. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Broad coverage of key concepts and issues in international business. Emphasis on the environment of international business and the operations of the multinational firm.

BUSI 4359. Business Strategy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
A capstone course involving the integration of concepts and principles studied in accounting, economics, finance, management, marketing, quantitative methods, and other relevant disciplines. Includes problem solving and business decision making. Designed to be taken by senior business majors during their last semester. Prerequisite: FINC 3301, BUSI 2305, MGMT 3300, MKTG 3312; or approval of department head.

BUSI 4385. Seminar in General Business. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of selected topics dealing with problems or unique needs of business. May be repeated for credit as topics vary. Prerequisite: Approval of Instructor and Department Head.

BUSI 4389. Global Business Practices. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of basic international business concepts, cultural literacy, and discipline specific content are then applied to practical experiences and activities related to the foreign country visited. A required study abroad at the student's expense is required. Student may complete a maximum of six hours of COBA sponsored study abroad toward degree completion. Field assignment fee of $50.

BUSI 4398. Professional Development in Applied Business. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A capstone course designed for students to synthesize the knowledge, skills, and attitude learned throughout the undergraduate applied business degree. Students will demonstrate their ability to articulate career pathways, contribute to the organizational structure of business/industry or other institutions, and examine strategies needed to make difficult decisions. Work may include individual/group research and critical reviews of existing bodies of knowledge.

Human Resource Management Courses

Management Courses

MGMT 3300. Principles of Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the basic managerial functions of planning, organizing, leading, and controlling resources to accomplish organizational goals. Management theories and the business environment are also covered.

MGMT 3302. Human Resource Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Fundamental functions of human resources management; relationship between personnel management and organizations' emerging role of personnel administration in development of strategic policy for organizations.

MGMT 3304. Small Business Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A course focused on key areas to consider when establishing and/or operating a small business in today’s complex and dynamic business environment. Areas of focus may include the current state of small business and the importance of entrepreneurs in the global economy, essential management skills and entrepreneurial traits, avenues for small business ownership, the importance, role, and components of business plans and the planning process, accounting and financial considerations, marketing/customer service, and exit strategies, among other areas. Guest presentations by entrepreneurs, consultants, and other key individuals who engage with entrepreneurs may be integrated into the course, along with other popular press publications which focus on current topics and trends in small business.

MGMT 3325. Leadership. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Advanced studies of contemporary leadership issues; the history of leadership; leadership theories; leadership ethics and values; group dynamics; organizational behavior; methods of effective team building; community activism; the politics of gender, race, disability, and age; the dynamic of power; and the aspect of professional networking. Course will include in depth study of above mentioned topics, as well as extensive discussion and research of related leadership issues.

MGMT 3350. Organization Behavior. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides a comprehensive analysis of the behavior of people at work in all types of organizations. Topics include fundamentals of organizational behavior: values, ethics, motivation, group dynamics, individual differences, attitudes, decision-making, conflict, power, change, stress, leadership, rewarding behavior, communication, and organizational structure.

MGMT 4084. Internship. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 1-20 Hours).
Preapproved and supervised work experience in a management related position with a public or private business organization. May be repeated for a total of 6 hours credit. Prerequisite: Approval of Instructor and Department Head.

MGMT 4086. Problems. 1-3 Credit Hours (Lecture: 0 Hours, Lab: 1-3 Hours).
A directed study of selected problems in management. May be repeated with department head approval. Prerequisites: Approval of Instructor and Department Head.

MGMT 4090. Special Topics in Management. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 1-3 Hours).
An examination of current topics in the field of management. Readings required from current management publications and other related periodicals. May be repeated for credit when topics vary.

MGMT 4303. Strategic Compensation. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Wage and salary administration in public and private organizations; determinants of general wage and salary levels and structures; total compensation systems, interrelationship among employee performance, intrinsic and extrinsic rewards, perceived equitable payments, employee satisfaction. Prerequisite: MGMT 3302.

MGMT 4304. Staffing Organizations. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Recruitment and selection of human resources for organizations; optimal utilization of human resources within organizations; use of tests and other techniques in human resource management. Prerequisite: MGMT 3302.

MGMT 4305. Human Resource Development. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Practical and theoretical approaches to training and development of employees in an organization. Topics include organization, role and scope, training and development functions, philosophies, strategies, need analysis, development of program content, methods, materials and techniques, and evaluation and control of the training and development function.

MGMT 4306. Employee and Labor Relations. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Collective bargaining, labor market fundamentals, unionism, and related issues of labor economics.

MGMT 4307. Business Ethics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
An analysis and examination of significant contemporary ethical issues and problems existing throughout the professional business arena. Emphasis will be upon the manager's social and environmental responsibilities to employees, customers, and the public.

MGMT 4308. Negotiation & Conflict Resolution. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is an introduction to the principles and methods of negotiation and conflict resolution that come about due to interpersonal and inter-group conflict. Explores the major theories, models, and concepts of bargaining and negotiation and introduces the topics of mediation and alternative dispute resolution.

MGMT 4312. Entrepreneurship. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Addresses the process of generating ideas for new business, writing comprehensive business plans. Emphasis on information sources, industry analysis.

MGMT 4315. Project Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is geared towards teaching students the fundamentals of project management based on the Project Management Body of Knowledge developed by the Project Management Institute. In particular, students will learn about scope, time, cost, quality, human resource, communication and procurement management and develop a comprehensive project plan accordingly.

MGMT 4320. International Entrepreneurship. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Entrepreneurship is a driver of growth, innovation, and wealth creation across developed, developing, and undeveloped nations. Increasingly, entrepreneurship is international from the founding of the venture. Entrepreneurial ventures source inputs from foreign firms and sell goods to foreign markets. Herein, we identify and address global entrepreneurial activities and evaluate the complex environment of global entrepreneurship. The course integrates theory with practical experiences in international entrepreneurship to provide students with the foundation to identify, evaluate and develop global entrepreneurial opportunities. The course is designed to prepare students for careers as founders of, early hires in, investors in, advisors to, or managers in global ventures.

MGMT 4321. Production and Operations Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Topics covered include: industrial organization, scientific management, planning and control, building locations and layouts, wage rates, corporation relationships, and research. Prerequisite: BUSI 2305 or concurrent enrollment.

MGMT 4323. Innovation and Creativity in Business. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The course explores the entrepreneurial mindset as it relates to creativity, innovation and creative problem-solving in the current business environment. Students will investigate various perspectives to ground an understanding of creativity, innovation and the uses of creative problem-solving. We will review theoretical and applied models of creativity and innovation as they relate to individuals, groups, and organizations. The materials address the creative process and its complexity as it fuels innovation in both a corporate and entrepreneurial environment though video presentations and discussions.

MGMT 4325. Trends and Issues in Entrepreneurship. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An examination of trends, topics, and opportunities in the entrepreneurial/small business arena. The course will explore the ever-changing environment of the 21st century entrepreneur with a focus on emerging trends, current research, popular press publications and articles, and other present day resources. Identification of potential impact, implications, and/or opportunities for the current or prospective entrepreneur will be a focus. Prerequisite: N/A.

MGMT 4354. International Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A global approach to the study of management to include international dimensions of the marketplace and environment, the role of culture, international strategic management, organizational behavior and human resource management.

MGMT 4385. Seminar in Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Deals with current issues in management. Readings are required from current management publications and other related periodicals. May be repeated for credit when topics vary. Prerequisites: 15 hours in MGMT and approval of department head.

MGMT 4389. Global Management Practices. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of basic international business concepts, cultural literacy, and discipline specific content are then applied to practical experiences and activities in the foreign country visited. A study abroad at the student's expense is required. Student may complete a maximum of six hours of COBA sponsored study abroad toward degree completion.

Department of Marketing and Computer Information Systems

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Tarleton State University's College of Business is proud to be AACSB-accredited, a prestigious recognition awarded to only the top business schools globally. Our programs are designed to deliver excellence in education, ensuring students are equipped with the knowledge and skills needed to thrive in today's competitive business environment. Explore our undergraduate and graduate degree options to take the first step toward a successful career.

Through innovative coursework, practical, hands-on learning opportunities, and guidance from experienced and dedicated faculty, our department is committed to preparing students for rewarding careers in the fields of marketing and computer information systems.

The department offers two primary disciplines of study, culminating in four distinct undergraduate degree options:

- Bachelor of Business Administration (BBA) in Marketing
- Bachelor of Science (BS) in Computer Information Systems
- Bachelor of Business Administration (BBA) in Management Information Systems
- Bachelor of Applied Arts and Sciences (BAAS) in Information Technology

Additionally, immerse yourself in the fast-growing field of cybersecurity through our department's specialized certificate program, designed to build essential skills and knowledge for success in this critical industry. For those seeking advanced education, explore our accelerated pathways into the Master's in Information Systems program, offering a seamless, time-efficient, and cost-effective transition to graduate-level study while preparing you for leadership roles in technology and business.

- Certificate in Cybersecurity
- MS Information Systems Accelerated Options

Bachelor of Business Administration in Marketing

The Bachelor of Business Administration (BBA) in Marketing degree program focuses on entrepreneurship and provides students with the essential knowledge and skills needed to excel in foundational marketing disciplines, including advertising, sales, pricing strategies, product design, quality management, and distribution. Integrated business core requirements further enhance students' understanding of fundamental business principles, making them highly desirable to industry employers.

This program emphasizes hands-on, real-world learning experiences, preparing students to make strategic business decisions and develop innovative, creative solutions to complex challenges. Marketing, as a business discipline, centers on understanding consumer behavior and effectively promoting products or services to drive engagement and sales.

In today's competitive job market, marketing is a fast-growing and in-demand profession, offering exciting career opportunities. With a strong curriculum, internship opportunities, and real-world applications, the BBA in Marketing equips students with both the theoretical knowledge and practical experience needed to thrive in diverse marketing careers.

General Education Requirements (p. 396)		42
Select one of the following (shared with the General Education Core)		
MATH 1314	College Algebra	
MATH 1324	Math for Business & Social Sciences I (Finite Mathematics)	
MATH 1332	Contemporary Mathematics I	
MATH 1342	Elementary Statistical Methods	
MATH 2412	Precalculus Math	
MATH 2413	Calculus I	
Common Business Core and Major Specific Requirements [1]		
BCIS 1305	Business Computer Applications	3
BUSI 1301	Business Principles	3
Select one of the following:		3-4
MATH 1316	Plane Trigonometry	
MATH 1324	Math for Business & Social Sciences I (Finite Mathematics)	
MATH 1325	Math for Business & Social Sciences II (Business Calculus)	
MATH 2412	Precalculus Math	
MATH 2413	Calculus I	
ACCT 2301	Principles of Accounting I-Financial	3
ACCT 2302	Principles of Accounting II-Managerial	3
BUSI 2301	Business Law I	3
BUSI 2305	Business Statistics	3
ECON 2301 [shared]	Principles of Macroeconomics	
ECON 2302	Principles of Microeconomics	3
BUSI 3312 [WI (p. 396)]	Business Communication	3
FINC 3301	Principles of Financial Management	3
MGMT 3300	Principles of Management	3
MKTG 3312	Marketing	3
BCIS 4350	Management Information Systems	3
BUSI 4344	Introduction to International Business	3
BUSI 4359 [WI (p. 396)]	Business Strategy	3
Major Specific Courses [1]		
PSYC 2301	General Psychology	3
Select one of the following:		3
BCIS 3315	Web Development	
BCIS 4090	Special Topics in Computer Information Systems	

BCIS 4379	The Technology of E-Business	
MKTG 3315	Personal Selling	3
MKTG 3316	Consumer Behavior	3
MKTG 4315	Marketing Research	3
MKTG 4316	Marketing Management	3
MKTG 4354	International Marketing	3
Select three of the following:		9
MKTG 3317	Retailing	
MKTG 3318	Promotional Strategy	
MKTG 4084	Internship	
MKTG 4086	Problems	
MKTG 4090	Special Topics in Marketing	
MKTG 4302	Services Marketing	
MKTG 4312	Sales Management	
MKTG 4314	Supply Chain and Logistics Concepts	
MKTG 4389	Global Marketing Practices	
Elective(s)		
Electives		3
Total Hours		**120**

Bachelor of Science in Computer Information Systems

Embark on an exciting journey into the dynamic world of technology with the Bachelor of Science in Computer Information Systems program at Tarleton State University. Designed to equip you with the skills and expertise needed to thrive in the fast-paced field of information systems, this program fosters a comprehensive understanding of technology's critical role in modern business environments.

As a designated STEM program by the Department of Homeland Security (DHS), this degree offers international students on F-1 visas a significant advantage. Graduates may qualify for an additional 24 months of Optional Practical Training (OPT) STEM extension, allowing for a total of 36 months of practical training in the United States. This opportunity makes the program an excellent choice for those seeking hands-on experience and a pathway to career success.

For more information and guidance on how to enroll, contact the International Programs (https://www.tarleton.edu/common/links/academic/international.html) office today and take the first step toward a rewarding career in information systems

General Education Requirements (p. 396) [1]		42
Major Specific Requirements [2]		
ACCT 3300	Accounting Concepts [3]	3
MGMT 3300	Principles of Management	3
MKTG 3312	Marketing	3
Select one of the following:		3
BUSI 3312 [WI (p. 396)]	Business Communication	
ENGL 3309 [WI (p. 396)]	Professional Writing	
BCIS 1305	Business Computer Applications	3
BCIS 1317	Personal Computer Maintenance and Hardware	3
BCIS 3315	Web Development	3
BCIS 3334	Programming for Business I	3
BCIS 3344	Programming for Business II	3
BCIS 3347	Data Communications	3
BCIS 3389 [WI (p. 396)]	System Analysis and Design	3
BCIS 4301	Database Theory and Practice	3
BCIS 4316	Managing IT Projects	3
BCIS 4350	Management Information Systems	3
BCIS 4385	Professional Development Seminar	3
6 HRS BCIS or COSC Electives (any level)		6
Elective(s)		
Electives		6
Total Hours		**99**

Accelerated CIS/MS Information Systems

15 HRS Upper Level BCIS or COSC or CRIJ 3315 or CRIJ 4353 [2]		15
BCIS 5000 Level Elective [2]		3
BCIS 5311	Managing Information Systems [2]	3
Total Hours		**21**

Cyber Security Concentration and Certificate

Cyber Security Certificate		**15**
BCIS 4320	Computer Forensics	
BCIS 4342	Ethical Hacking & Network Defense	
BCIS 4345	Network and Systems Security	
CRIJ 3315	Rules of Criminal Evidence	
CRIJ 4353	Global Cyber-Security	
Additional Advanced Electives Required for the Concentration:		

6 HRS Upper Level BCIS or COSC [4]		6
Total Hours		**21**

Cyber Security Concentration and Certificate/Accelerated CIS/MS Information Systems

Cyber Security Certificate		**15**
BCIS 4320	Computer Forensics	
BCIS 4342	Ethical Hacking & Network Defense	
BCIS 4345	Network and Systems Security	
CRIJ 3315	Rules of Criminal Evidence	
CRIJ 4353	Global Cyber-Security	
Additional Advanced Coursework Required for the Concentration:		
BCIS 5000 Level Elective [5]		3
BCIS 5311	Managing Information Systems	3
Total Hours		**21**

Information Systems

21 HRS Upper Level BCIS or COSC or CJ 3315 or CRIJ 4353 [2]		21
Total Hours		**21**

Bachelor of Applied Arts and Sciences in Information Technology

Unlock your career potential in Information Technology with the Bachelor of Applied Arts and Sciences (BAAS) program at Tarleton State University. Tailored for working professionals, this program offers a flexible and practical pathway to develop IT expertise, preparing you to meet the demands and opportunities of today's technology-driven world.

The BAAS in Information Technology program provides multiple options to enhance your degree, making you more competitive in the marketplace. It also offers accelerated pathways to seamlessly transition into a Master's in Information Systems, helping you achieve your educational and career goals faster.

As a STEM-designated program recognized by the Department of Homeland Security (DHS), the BAAS-IT degree offers international students on F-1 visas an additional 24 months of Optional Practical Training (OPT) under the STEM extension, allowing for a total of 36 months of hands-on practical training in the United States.

To learn more about this unique opportunity and begin your journey toward IT career success, contact the International Programs (https://www.tarleton.edu/common/links/academic/international.html) office today

General Education Requirements (p. 396)		42
Major Specific Requirements		
BCIS 1305	Business Computer Applications	3
BCIS 3315	Web Development	3
BCIS 3334	Programming for Business I	3
BCIS 3347	Data Communications	3
BCIS 3389 [WI (p. 396)]	System Analysis and Design	3
BCIS 4301	Database Theory and Practice	3
Choose One of the Following:		3
BCIS 4316	Managing IT Projects	
MGMT 4315	Project Management	
BCIS 4350	Management Information Systems	3
BCIS 4385	Professional Development Seminar	3
Choose one of the following:		3
ENGL 3309 [WI (p. 396)]	Professional Writing	
BUSI 3312 [WI (p. 396)]	Business Communication	
Credit for Prior Learning Component:		
Credit for Prior Learning		12-33
BCIS or COSC (Any Level)		0-21
Total Hours		**105**

Accelerated IT/MS Information Technology

Electives		3
Advanced Electives from BCIS or COCS or CRIJ 3315 or CRIJ 4353 [1]		6
BCIS 5000 Level Elective [1]		3
BCIS 5311	Managing Information Systems [1]	3
Total Hours		**15**

Cyber Security Concentration and Certificate

Cyber Security Certificate		
BCIS 4320	Computer Forensics	3
BCIS 4342	Ethical Hacking & Network Defense	3
BCIS 4345	Network and Systems Security	3

CRIJ 3315	Rules of Criminal Evidence	3
CRIJ 4353	Global Cyber-Security	3
Total Hours		**15**

Information Technology

Electives	3
Advanced Electives from BCIS or COCS or CRIJ 3315 or CRIJ 4353 [1]	12
Total Hours	**15**

Bachelor of Business Administration in Management Information Systems

Embark on an exciting career at the intersection of business and technology with the Bachelor of Business Administration (BBA) in Management Information Systems at Tarleton State University. This program is designed to equip you with the expertise to harness information systems for strategic business advantages, ensuring you are prepared to excel in the ever-changing digital landscape.

The BBA-MIS program offers a range of opportunities to enhance your degree, making you more competitive in the marketplace. Additionally, you can take advantage of accelerated pathways to seamlessly transition into a Master's in Information Systems, saving time and advancing your career goals more efficiently.

As a STEM-designated program by the Department of Homeland Security (DHS), this degree provides international students on F-1 visas with significant benefits, including eligibility for an additional 24 months of Optional Practical Training (OPT) under the STEM extension, for a total of 36 months of practical training in the United States.

For more information and to take the next step in your academic and professional journey, contact the International Programs (https://www.tarleton.edu/common/links/academic/international.html) office today

General Education Requirements (p. 396) [1]		42
Select one of the following shared with the General Education Core:		
MATH 1314	College Algebra	
MATH 1324	Math for Business & Social Sciences I (Finite Mathematics)	
MATH 1332	Contemporary Mathematics I	
MATH 1342	Elementary Statistical Methods	
MATH 2412	Precalculus Math	
MATH 2413	Calculus I	
Common Business Core and Major Specific Requirements [2]		
BCIS 1305	Business Computer Applications	3
BUSI 1301	Business Principles	3
Select one of the following:		3-4
MATH 1316	Plane Trigonometry	
MATH 1324	Math for Business & Social Sciences I (Finite Mathematics)	
MATH 1325	Math for Business & Social Sciences II (Business Calculus)	
MATH 2412	Precalculus Math	
MATH 2413	Calculus I	
ACCT 2301	Principles of Accounting I-Financial	3
ACCT 2302	Principles of Accounting II-Managerial	3
BUSI 2301	Business Law I	3
BUSI 2305	Business Statistics	3
ECON 2301 [shared]	Principles of Macroeconomics	
ECON 2302	Principles of Microeconomics	3
BUSI 3312 [WI (p. 396)]	Business Communication	3
FINC 3301	Principles of Financial Management	3
MGMT 3300	Principles of Management	3
MKTG 3312	Marketing	3
BCIS 4350	Management Information Systems	3
Select one of the following		3
BCIS 4355	Global Information Systems	
BUSI 4344	Introduction to International Business	
ECON 4301	International Economics	
FINC 4301	International Financial Management	
BUSI 4359 [WI (p. 396)]	Business Strategy	3
Major Specific Courses [2]		
BCIS 3334	Programming for Business I	3
BCIS 3344	Programming for Business II	3
BCIS 3347	Data Communications	3
BCIS 3389 [WI (p. 396)]	System Analysis and Design	3
BCIS 4301	Database Theory and Practice	3
BCIS 4385	Professional Development Seminar	3
Total Hours		**105**

Accelerated MIS/MS Information Systems

BCIS or COSC Electives (3 hours Advanced) [2]		6
BCIS 5000 Level Elective [2]		3
BCIS 5311	Managing Information Systems [2]	3
Elective(s)		3
Total Hours		**15**

Cyber Security Concentration and Certificate

BCIS 4320	Computer Forensics	3
BCIS 4342	Ethical Hacking & Network Defense	3
BCIS 4345	Network and Systems Security	3
CRIJ 3315	Rules of Criminal Evidence	3
CRIJ 4353	Global Cyber-Security	3
Total Hours		**15**

Information Systems

BCIS or COSC Electives (9 hours Advanced) [2]		12
Elective(s)		3
Total Hours		**15**

Certificate in Cybersecurity

Our Certificate in Cybersecurity, designed for students pursuing a BAAS in Information Technology, BBA in Management Information Systems, or BS in Computer Information Systems, offers a robust curriculum to build expertise in this high-demand field. Core courses include Computer Forensics, Ethical Hacking & Network Defense, Network and Systems Security, Rules of Criminal Evidence, and Global Cyber-Security, providing a comprehensive foundation in the principles and practices of cybersecurity.

This program equips you with the critical knowledge and skills needed to thrive in the ever-evolving cybersecurity landscape, preparing you for success in roles that protect organizations from modern threats.

To learn more and incorporate this valuable credential into your degree plan, work closely with your COB Academic Adviser and take advantage of this opportunity to stand out in today's competitive job market.

CRIJ 3315	Rules of Criminal Evidence	3
BCIS 4320	Computer Forensics	3
BCIS 4342	Ethical Hacking & Network Defense	3
BCIS 4345	Network and Systems Security	3
CRIJ 4353	Global Cyber-Security	3
Total Hours		**15**

Accelerated Program

The MS-Information Systems includes an accelerated option, allowing you to begin your graduate studies early and shortening your time to graduation, saving you money. If interested, you should consider this option early in your program and work with your Academic Adviser (https://www.tarleton.edu/cob/undergraduate-advising/) to select the appropriate degree plan options:

- BS-CIS: Accelerated CIS/MS Information Systems
- BAAS-IT: Accelerated IT/MS Information Technology
- BBA-MIS: Accelerated MIS/MS Information Systems

In the accelerated program, in your second to last semester, you should work with the COB Graduate Programs Manager (cob.graduate@tarleton.edu) to complete the Graduate Student Provisional Form (https://www.tarleton.edu/degrees/wp-content/uploads/sites/140/2022/06/New_Provisional_Form.pdf), enabling you to register for graduate classes in your final semester. In your final semester, you will take BCIS 5311 plus an additional BCIS graduate elective, to serve as undergraduate electives and also begin work towards your MS in Information Systems program. You should also complete your application to the College of Graduate Studies during your final semester in preparation for admittance into the graduate program.

Other Information

- **Academic Appeals Process**: Tarleton's Dr. Sam Pack College of Business adheres to the university's policies on academic appeals. Students experiencing academic grievances should consult the **Satisfactory Academic Performance** section on the Student Services and Resources (https://www.tarleton.edu/cob/student-services-and-resources/) page. This resource provides clear guidance on the steps for addressing and resolving academic concerns. For further assistance, students are encouraged to contact the appropriate university support services.
- **Netiquette (https://www.tarleton.edu/cob/netiquette/):** Learners are expected to communicate respectfully, respond promptly, and actively participate in discussions and group activities to ensure a collaborative and effective learning environment.
- **Minimum Technology Requirements (https://www.tarleton.edu/cob/minimum-technology-requirements/):** Students enrolled in programs within Tarleton's AACSB-accredited Dr. Sam Pack College of Business must meet minimum technology requirements to ensure seamless access to course materials and online learning activities. Requirements include a reliable computer, high-speed internet connection, and standard productivity software such as Microsoft Office. Additional recommendations may include specific software or tools relevant to the program, as outlined in advising guides or course syllabi. For further assistance, students can access university technical support services.
- **Computer Skills and Digital Information Literacy Skills (https://www.tarleton.edu/cob/computer-skills-and-digital-information/):** To succeed in your courses course, students should possess essential skills such as time management, critical thinking, effective communication, and basic technical proficiency relevant to the course content.

- **Vendor Privacy Statements (https://www.tarleton.edu/cob/vendor-privacy-statements/):** Students are encouraged to review the privacy policies of tools used in your courses to understand how their data is managed. Use of these tools implies agreement with their terms.
- **Technical Support (https://www.tarleton.edu/cob/technical-support/):** For technical support with tools used in your courses, refer to the vendor support resources provided for troubleshooting and assistance. These resources offer guidance to resolve common issues effectively.
- **Accessibility Support (https://www.tarleton.edu/cob/accessibility-support/):** For accessibility support services related to tools used in your courses, visit the vendor accessibility pages provided to ensure inclusive and equitable access. These resources address common accessibility concerns and offer assistance.
- **Academic Support Services (https://www.tarleton.edu/cob/academic-support-services/):** Tarleton's Dr. Sam Pack College of Business offers various academic support services to help students succeed, including orientations for undergraduate and graduate programs, library services, the Math Achievement Center, the Writing Center, and the Tutoring and Learning Center. These resources provide personalized support, from enhancing writing skills to developing effective learning techniques.
- **Student Services and Resources (https://www.tarleton.edu/cob/student-services-and-resources/):** Tarleton's Dr. Sam Pack College of Business offers a wide range of resources to support student success, including academic advising, registration guidance, financial aid assistance, and counseling services. Additional support includes tools for scholarships, veteran services, and career development, with specialized resources like internships and student organizations to enhance professional growth.
- **Vendor Accessibility Statements (https://www.tarleton.edu/cob/vendor-accessibility-statements/):** The Dr. Sam Pack College of Business is committed to providing accessible technology for all students. Accessibility statements for all required technologies used in COB courses, including tools like Canvas, Adobe, Microsoft, Pearson products, and Zoom, are available to ensure equitable access. These statements outline the accessibility features and accommodations provided by each vendor to support an inclusive learning environment.
- **Undergraduate Online Orientation (https://tarleton.instructure.com/courses/19004/):** The Undergraduate Online Orientation introduces new graduate students to the resources, expectations, and academic culture of the Dr. Sam Pack College of Business (DSPCOB). This self-paced program covers key aspects of graduate studies, including navigating the online learning environment, utilizing university services like the library and writing center, and understanding program policies and procedures. Orientation ensures that students feel confident and prepared to succeed in their academic journey.
- **Undergraduate Course Rotations and Advising Guides (https://www.tarleton.edu/majorinfo/):** Undergraduate Course Rotations provide a structured schedule of when specific graduate courses are offered across semesters. This information helps students plan their academic paths efficiently, ensuring they can meet degree requirements within their desired timeline. Rotations typically detail which courses are available in the fall, spring, and summer semesters and indicate whether they are offered online, in-person, or in hybrid formats. Similarly, Advising Guides help provide learners with guidance as they plan out course sequencing for their program.
- **DSPCOB Syllabi (https://tarleton.simplesyllabus.com/en-US/syllabus-library/?organization_id=959fb73a-4c87-429b-b594-b6478f07c5b2):** The DSPCOB Syllabi repository gives students access to detailed course syllabi for all graduate and undergraduate programs within the college. Each syllabus outlines the course objectives, topics covered, grading criteria, required materials, and policies on academic integrity, attendance, and participation. The syllabi serve as a roadmap for academic success, offering clarity on expectations and resources for each course.
  - DSPCOB Syllabi Repository (https://tarleton.sharepoint.com/:f:/s/COBA-CollegeofBusinessAdministration/EmCXrId_dflHuYGPgq8EwJIBdOYJhbXS9ewutrtVFGbR-A/?e=Eom9Kh) (Syllabi prior to the implementation of Simple Syllabus implemented for Spring 2025)

Questions?

Have more questions? Reach out to one of our advisors at DSPCOB Undergraduate Advisors (https://www.tarleton.edu/cob/undergraduate-advising/)!

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Professors

- Hsu, Dr. Chun-Kai "Tommy"
- Jones, Dr. Dennis
- Schuessler, Dr. Joseph H.
- Schultz, Dr. Leah
- Shao. Dr. Chris

Associate professors

- Chavarria, Dr. Juan
- Kilic, Dr. Ceyhan
- Senn, Dr. Will
- Wu, Dr. Yi-Chia

Assistant professors

- Amin, Dr. M.A. Shariful
- Chen, Dr. Aray
- Flores, Dr. Javier
- To, Dr. Rita

Instructor

- January, Dr. Scott
- Whitson, Ms. Tara

Adjuncts

- Holland, Ms. Jana
- Finch, Dr. James
- Shaw, Mr. Cory
- Rasmussen, Mr. Clay

Business Administration Courses

Business Computer Information Systems Courses

BCIS 1305. Business Computer Applications. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduces and develops foundational skills in applying essential and emerging business productivity information technology tools. The focus of this course is on business productivity software applications, including word processing, spreadsheets, databases, presentation graphics, data analytics, and business-oriented utilization of the internet.

BCIS 1317. Personal Computer Maintenance and Hardware. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An enhanced study of technology and hardware operation of microcomputers, their peripherals, and operating systems. Also considered are hardware configuration and selection, installation, test procedures, and maintenance.

BCIS 3302. Database and Data Management for Small Businesses. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Studies relational database packages. In addition, students improve their knowledge and skill with a current personal computer operating system.

BCIS 3315. Web Development. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Students will explore the underlying technical foundations of web design and programming. Emphasis will be placed on HTML and CSS coding as well as principles of client side scripting languages such as Javascript.

BCIS 3332. Java Programming. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A first course in the Java programming language. Covers the basic structure of Java, all standard features, data representation, and simple I/O. Students will analyze and program several representative programs.

BCIS 3333. C# Programming. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A first course in the C# programming language. Covers the basic structure of C#, all standard features, data representation, and simple I/O. Students will analyze and program several representative problems.

BCIS 3334. Programming for Business I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A first course in programming with a business focus. Covers the basic structures of programming, all standard features, data representation, and simple I/O. Students will analyze and develop programs relevant to business applications.

BCIS 3342. Advanced Java Programming. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An advanced course in the Java programming language. Covers advanced Java capabilities such as class features, error handling, graphical user interfaces, applets, and advanced object-oriented programming techniques. Students will analyze and program several representative problems. Prerequisite: BCIS 3332 or BCIS 3333 or approval of department head.

BCIS 3343. Advanced C# Programming. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Advanced programming using the C# programming language to create Windows applications in an Internet and intra-network environment. Explores object-oriented design, client-server interaction, event-driven programming, graphical user interfaces, distributed data, and distributed applications. Prerequisite: BCIS 3332 or BCIS 3333 or approval of department head.

BCIS 3344. Programming for Business II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A second course in programming with a business focus. Expands on foundational programming concepts with advanced paradigms, modular design, and domain-specific tools. Covers object-oriented and functional programming, design patterns, and emerging business technologies. Students will design, implement, and analyze complex software solutions for business needs. Prerequisite: BCIS 3334 or BCIS 3332 or BCIS 3333.

BCIS 3347. Data Communications. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of voice and data communications technologies, concepts, and applications, including communications terminology, hardware, software, protocols, and managerial issues in data and voice communications. Topics will include alternatives available in hardware, software, and transmission facilities, design integration, selection and implementation of communications solutions. In addition, students will explore the current and future impact and direction of these technologies.

BCIS 3389. System Analysis and Design. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
A study of the systematic analysis, design, and implementation of software systems with special emphasis on the processes and skills used in the first four stages of the System Development Life Cycle. Traditional and current methodologies, including computer aided analysis and design tools will be considered. Topics will be approached through project-oriented cases and projects, which integrate theory and practical application. Prerequisite: BCIS 3332 or BCIS 3333 or BCIS 3334.

BCIS 4084. Internship. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 1-20 Hours).
Preapproved and supervised work experience in a Computer Information Systems related position with a public or private business organization. May be repeated for a total of 6 hours credit. Prerequisite: Approval of department head.

BCIS 4086. Problems. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 0-0 Hours).
Selected individual topics in business on technical computer applications, practicum, field project, or other suitable computer studies. May be repeated for a maximum of 6 semester hours credit. Prerequisites: Approval of instructor and department head.

BCIS 4090. Special Topics in Computer Information Systems. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 0-0 Hours).
An examination of current topics in computer information systems. Readings required from current computer information systems publications and other related periodicals. May be repeated for credit when topics vary. Prerequisite: 9 hours in BCIS.

BCIS 4301. Database Theory and Practice. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Database concepts and structures. File and data management principles underlying database construction. Fundamental types of database models, with emphasis on relational databases as well as on major non-relational forms. Practice in analysis, design, development, and optimization of working database applications on a variety of problems. Small and large system databases will be considered. Prerequisite: BCIS 3332 or BCIS 3333 or BCIS 3334 or COSC 3360.

BCIS 4308. Advanced Programming Language. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Develops the programming proficiency in a modern programming language. Students complete many programming assignments to achieve necessary knowledge and skills. May be repeated as topics vary. Prerequisite Approval of instructor or department head. Prerequisite: Approval of instructor or department head.

BCIS 4315. Interactive and Applied Multimedia. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An exploration of multimedia tools and their relationships to various disciplines of study. A review of the principles of multimedia and the effective uses of multimedia will be conducted. The production and design of multimedia systems will culminate the course of study.

BCIS 4316. Managing IT Projects. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course explores the fundamentals of managing IT projects based on the Project Management Body of Knowledge developed by the Project Management Institute. Specifically, the course will focus on exploring the knowledge, skills, tools, and techniques used by an IT project manager to manage multiple project constraints with special emphasis on the triple constraints of scope, time, and costs. Prerequisite: BCIS 1305 and BCIS 3389.

BCIS 4320. Computer Forensics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will examine the principles and practice of conducting computer forensics investigations for both criminal and business application. Students will apply investigative methods to properly conduct a computer forensics investigation beginning with a discussion of ethics. Students will examine and use various technologies, software and procedures applicable to forensic investigation. The course will also cover the legal responsibilities and key evidentiary procedures necessary to conduct the computer forensics process. Students should have a working knowledge of hardware and operating systems to maximize their success on projects and exercises in this course. Prerequisite: Junior Standing or the approval of the instructor or department head.

BCIS 4342. Ethical Hacking & Network Defense. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduces intrusion security testing as a method for improving network defense to computer users with a solid grounding in computer and networking basics. Students will learn how to identify network security vulnerabilities by employing the techniques and software normally used by hackers to compromise networks. Students will then learn the process of determining the best practices in how to secure those vulnerabilities. Topics will include the mission and limitations of security and penetration testers along with the legal ramifications and restrictions involved. Students will be study the various methods of hackers, operating systems threats for Windows and UNIX based systems, cryptography, and modern network protection systems. Prerequisite: Junior standing or approval of instructor or department head.

BCIS 4345. Network and Systems Security. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Studies the issues of Network and Systems Security as a continuous process involving analysis, implementation, evaluation and maintenance. Topics will include addressing computer-related risks, case analysis, and future trends. The course will provide approaches, techniques, and best practices for securing modern electronic data systems. Areas covered include electronic information and message security, database and file integrity, physical security, security management, security risk analysis, and encryption. Prerequisite: BCIS 3347 or approval of department head.

BCIS 4347. Advanced Database Systems. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Studies the theory and practice in the analysis, design, development, implementation, and optimization of working database applications on a variety of problems focusing on topics such as database administration. Prerequisite: BCIS 4301 or approval of instructor or department head.

BCIS 4350. Management Information Systems. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course investigates management issues related to business information systems designed to meet the informational needs of the various business subsystems. The concepts of systems development, security, privacy and ethics associated with information systems are stressed. Prerequisite: BCIS 1305.

BCIS 4352. Structured Query Language. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of SQL, including relational database schema in SQL, formulating SQL queries and sub queries of varying complexity, embedding SQL statements in a host language, defining and querying data views in SQL, and other related topics. Prerequisite: BCIS 4301 or approval of instructor or department head.

BCIS 4355. Global Information Systems. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the international issues surrounding the planning, implementation, and management of global information systems. Topics covered include development and planning of offshoring programs, cultural aspects of information systems development and deployment and legal issues of global information systems. Prerequisite: Junior Standing.

BCIS 4376. Network Administration. 3 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
Studies communications architectures, protocols, and interfaces as they relate to network operating systems. Topics will include communications networking techniques such as circuit switching, packet switching, broadcast networking and internetworking. Also included will be installation, configuration, client handling, basic security, and troubleshooting of a network operating system. A modern network operating system will be used to provide extensive hands-on experience in configuring and administrating a network. Prerequisite: BCIS 3347 or approval of instructor or department head Lab fee: $2.

BCIS 4379. The Technology of E-Business. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines the linkage of organizational strategy and electronic methods of delivering products, services and exchanges in inter-organizational, national, and global environments. Information technology strategy and technological solutions for enabling effective business processes within and between organizations in a global environment are considered.

BCIS 4385. Professional Development Seminar. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Professional-level enrichment for CIS majors with activities which may include participation in professional organizations, current events, research and presentations, job market analysis, interviewing and resume preparation. Prerequisite: 24 hours of BCIS/CIS courses or approval of department head.

Marketing Courses

MKTG 2314. Marketing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Examination of the principles and concepts of marketing goods, services, and intangibles by profit and non-profit organizations in a free enterprise and global economy.

MKTG 3312. Marketing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Examination of the principles and concepts of marketing goods, services, and intangibles by profit and non-profit organizations in a free enterprise and global economy.

MKTG 3315. Personal Selling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the role and function of personal selling as a part of the marketing mix. Techniques in identifying and locating prospective customers, approaching the prospect, presentation, and demonstrations of products and services, closing the sale, and servicing customer accounts are covered in theory and practice. Prerequisite: MKTG 2314 or MKTG 3312.

MKTG 3316. Consumer Behavior. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Acquaints students with individual and group behavior of people performing in consumer role. Considers such topics as buying motives, social class, and research techniques in consumer behavior. Prerequisite: MKTG 2314 or MKTG 3312.

MKTG 3317. Retailing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Fundamental operations of retailing, studying of buying practices, pricing, store locations and layout, sales promotions, personnel management, and stock control. Designed to aid the student seeking a general knowledge of the retail field as well as those specializing in Marketing. Prerequisite: MKTG 2314 or MKTG 3312.

MKTG 3318. Promotional Strategy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of a controlled, integrated program of promotional variables. Designed to present a company and its products to prospective customers; to promote need-satisfying attributes of products toward the end of facilitating sales and long-run performance. Prerequisite: MKTG 2314 or MKTG 3312.

MKTG 4084. Internship. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 1-20 Hours).
Preapproved and supervised work experience in a marketing related position with a public or private business organization. May be repeated for a total of 6 hours credit. Prerequisite: Either MKTG 2314 or MKTG 3312, and approval of Department Head.

MKTG 4086. Problems. 1-3 Credit Hours (Lecture: 0 Hours, Lab: 1-3 Hours).
A directed study of selected problems in marketing. May be repeated with approval of the department head. Prerequisites: Approval of instructor and Department Head.

MKTG 4090. Special Topics in Marketing. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 0 Hours).
An examination of current topics in marketing. Readings required from current marketing publications and other related periodicals. May be repeated for credit when topics vary. Prerequisite: 9 hours of MKTG.

MKTG 4302. Services Marketing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduce the student to the service environment. An in-depth analysis of the most successful service-oriented industries and firms within the world's fastest-growing economic sector will be presented. Prerequisite: MKTG 2314 or MKTG 3312.

MKTG 4312. Sales Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Administration of an effective sales force, including strategy, planning, recruiting, training, motivating, coordinating, leading, and directing sales forces at all levels of marketing enterprises. Prerequisites: Either MKTG 2314 or MKTG 3312, and MKTG 3315.

MKTG 4314. Supply Chain and Logistics Concepts. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Explore key business concepts, issues and decisions required for the organization and management of supply chains within the global marketplace. Supply Chain Management involves planning and coordinating the value-added activities and flow of materials, finished goods and information. Supply chain organizations participate in the product fulfillment process so that products are distributed to customers in the right quantity, time, and at the lowest cost subject to customer expectation and other service requirements. Prerequisite: MKTG 2314 or MKTG 3312.

MKTG 4315. Marketing Research. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Familiarizes students with the accurate, objective, and systematic gathering, recording, and analyzing of data about problems relating to marketing goods and services. Prerequisites: Either MKTG 2314 or MKTG 3312, and either BUSI 2305 or BUSI 3311.

MKTG 4316. Marketing Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The application of strategic planning and management of all functional aspects of the marketing operation of an enterprise using comprehensive analytical methods and an integrated marketing mix. Prerequisites: Either MKTG 2314 or MKTG 3312, and 6 hours of upper level MKTG.

MKTG 4354. International Marketing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A global approach to the study of comparative marketing systems, including economic, social, technological, governmental, and political environments as they affect international marketing operations. Prerequisite: MKTG 2314 or MKTG 3312.

MKTG 4385. Seminar in Marketing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of selected topics dealing with problems or unique needs of Marketing. May be repeated for credit as topics vary. Prerequisite: Approval from instructor & department head.

MKTG 4389. Global Marketing Practices. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of basic international business concepts, cultural literacy, and discipline specific content are then applied to practical experiences and activities in the foreign country visited. A study abroad at the student's expense is required. Student may complete a maximum of six hours of COBA sponsored study abroad toward degree completion. Field assignment fee of $50. Prerequisites: Either MKTG 2314 or MKTG 3312, or approval of instructor and department head.

College of Education

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The College of Education includes the Department of Curriculum and Instruction, the Department of Educational Leadership and Technology, and the School of Behavioral Sciences, which houses the Department of Psychological Sciences, the Department of Counseling, the Division of Child and Family Studies, and the Division of Sociology. The mission of the College of Education is to provide students in professional education and other behavioral sciences with a quality education through academic, cultural, and leadership experiences, and to provide leadership through scholarship and service to the community and professions. Programs in the College of Education prepare students for challenging, gratifying, and socially significant careers.

Departments and Programs

- Department of Curriculum and Instruction (p. 208)
  - BS in Elementary Teacher Education
  - BS in Secondary Teacher Education
- School of Behavioral Sciences (p. 221)
  - Department of Psychological Sciences (p. 223)
    - BS in Psychology
  - Division of Child and Family Studies (p. 227)
    - BAAS in Child Development and Family Studies
    - BS in Child Development and Family Studies
  - Division of Sociology (p. 231)
    - BS in Applied Sociology

Teacher Education Program

Teacher Education (Elementary Teacher Education, Secondary Education), one of the major programs at Tarleton State University, emphasizes broad general education as a foundation for mastery of teaching skills and specialized knowledge in an academic discipline. The primary purpose of teacher education is to prepare highly qualified teachers for Texas and the nation. The goal of Tarleton State University's Teacher Education Program is to develop teachers who:

1. possess appropriate knowledge and abilities in specific content areas or teaching fields;
2. communicate effectively with students, parents, and other professionals;
3. apply the principles of instructional planning in the development of curriculum;
4. use effective teaching practices;
5. formally and informally evaluate student performance and use results of such assessment in the instructional decision-making process;
6. promote critical thinking and participatory citizenship;
7. are skilled in the use of instructional technology;
8. are proficient in mathematical skills;

9. operate within the legal guidelines and uphold the ethics of the teaching profession;
10. demonstrate concern for students' general welfare; and
11. are committed to continued professional growth and development.

Admission to the Teacher Education Program [1]

Secondary and All-Level Certification

1. Formal application for admission to the Teacher Education Program should be made by the student during the first semester of the junior year while enrolled in EDUC 3321 Foundations of Teaching: Middle and Secondary Classrooms. Application deadlines are October 15 for the fall semester, February 15 for the spring semester, and July 1 for the summer. Formal admission to this program shall be a prerequisite to taking any professional development courses beyond EDUC 3321 Foundations of Teaching: Middle and Secondary Classrooms
   Applications are submitted to Educator Preparation Services, Suite 101, Mathematics Building, or online. Follow instructions found in the application.
2. The following criteria must be met for admission to the Teacher Education Program:
   a. Minimum GPA of 2.75 (on a 4.00 scale) on all courses in the following areas: professional development/education and certification field(s);
   b. Minimum GPA of 2.75 on all courses listed on the secondary certificate plan;
   c. Minimum GPA of 2.75 overall on the transcript or on last 60 hours by the end of application semester. Last 60 hours is calculated using full semesters so hours total may be more than 60.
   d. No grade lower than a C in professional education course work block;
   e. No grade lower than a C in certification field(s) block(s);
   f. Satisfaction of basic skills as determined by admission requirements to Tarleton State University;
   g. Completion of EDUC 3321 Foundations of Teaching: Middle and Secondary Classrooms and PSYC 2308 Child & Adolescent Psychology, PSYC 3303 Educational Psychology or CHFS 3300 Child Development with a grade of C or better;
   h. Completion of 9 hours of required English with a grade of C or better in each course;
   i. Completion of 12 hours in certificate area (15 hours if Math or Science) with a grade of "C" or better and a minimum 2.75 GPA by the end of the application semester;
   j. Evidence of good moral character and the mental, emotional, and physical ability to function effectively in a classroom;
   k. Successful completion of a departmental screening instrument;
3. Educator Preparation Program admission and course requirements are developed based on standards developed by the Texas Education Agency (TEA) and the State Board of Educator Certification (SBEC). A student must meet current requirements to obtain certification, which may mean program changes not reflected in the catalog.
4. The applicant will receive email notification from Educator Preparation Services regarding his/her acceptance into the Tarleton Teacher Education Program. The student will have 5 days to either accept or reject the offer of admission into the Teacher Education Program.

[1] Appeals of any admissions requirements must be made in writing to the Director of Teacher Education. Appeals are reviewed by the Educator Preparation Council at the next regular meeting.

Note: The State Board for Educator Certification may require disclosure of previous arrest, conviction and/or deferred adjudication and may refuse to issue an educator certificate for a person who has been convicted of a felony or misdemeanor for a moral turpitude crime which relates to the teaching function. Pursuant to §22.082, Texas Education Code, the State Board for Educator Certification may access any criminal history information pertaining to you and held by any law enforcement or criminal justice agency. The State Board for Educator Certification may refuse to confer state certification based on such criminal history information.

Pursuant to §22.083, Texas Education Code, a school district or private school may access any criminal history information pertaining to you and held by any law enforcement or criminal justice agency. A school district or private school may refuse to provide a placement for field experience or employ you based on your criminal history. A school district or private school must report to the State Board for Educator Certification if the school district or private school obtains or has knowledge that an applicant or holder of an educator certificate has a criminal history.

Elementary Certification (Elementary Teacher Education)

1. Formal application for admission to the Teacher Education Program should be made by the student during the first semester of the junior year while enrolled in EDUC 3320 Foundations of Teaching: Elementary (EC-6) Classrooms or EDUC 3321 Foundations of Teaching: Middle and Secondary Classrooms. Application deadline dates are October 15 for the fall semester, February 15 for the spring semester, and July 1 for the summer. Formal admission to this program shall be prerequisite to taking any professional development courses beyond EDUC 3320 Foundations of Teaching: Elementary (EC-6) Classrooms. Applications are submitted to Educator Preparation Services, Suite 101, Mathematics Building, or online. Follow instructions found in the application.
2. The following criteria must be met for admission to the Teacher Education Program as an Elementary Certification major:
   a. Minimum GPA of 2.75 on all courses in the following areas: professional development/education, content block, and reading block;
   b. Minimum GPA of 2.75 on all courses listed on the certification plan;
   c. Minimum GPA of 2.75 overall on the transcript or on last 60 hours by the end of application semester. Last 60 hours is calculated using full semesters so hours total may be more than 60;
   d. No grade lower than a C in professional education course work block; content block, or reading block;
   e. Satisfaction of basic skills as determined by admission requirements to Tarleton State University;
   f. Completion of EDUC 3320 Foundations of Teaching: Elementary (EC-6) Classrooms or EDUC 3321 Foundations of Teaching: Middle and Secondary Classrooms, and PSYC 2308 Child & Adolescent Psychology, PSYC 3303 Educational Psychology or CHFS 3300 Child Development with a grade of C or better;
   g. Completion of 9 hours of required English with a grade of C or better in each course;
   h. Completion of 12 hours in certificate area (15 hours if Math or Science) with a grade of "C" or better and a minimum 2.75 GPA by the end of the application semester;
   i. Successful completion of a departmental screening instrument;
   j. Completion of MATH 1314 College Algebra or higher with a "C" or better (a departmental requirement for course prerequisites);
   k. Evidence of good moral character and the mental, emotional, and physical ability to function effectively in a classroom;
   l. Compliance with the Texas Educator Code of Ethics; and
3. Educator Preparation Program admission and course requirements are developed based on standards developed by the Texas Education Agency (TEA) and the State Board of Educator Certification (SBEC). A student must meet current requirements to obtain certification, which may mean program changes not reflected in the catalog.

4. The applicant will receive email notification from Educator Preparation Services regarding his/her acceptance into the Tarleton Teacher Education Program. The student will have 5 days to either accept or reject the offer of admission into the Teacher Education Program.

Recommendation for Admission to Teacher Education:

Only those applicants who are selected by the Elementary Education Admissions Committee and have maintained the above academic standards will be recommended for admission to the Tarleton Teacher Education Program. At the beginning of the semester following selection, the Tarleton Educator Preparation Council members will vote on those candidates recommended for admission to the Program. Should limitations on resources require restrictions to be placed on the number of students admitted in a given semester or year, the Educator Preparation Council will admit students based on a total score which is an aggregate of all the above criteria. Students not admitted must reapply.

Retention in the Teacher Education Program

Retention in the Teacher Education Program requires maintenance of standards required for admission, plus evidence of satisfactory academic progress and professional development. If the above-stated criteria for admission and retention are not maintained, a student will receive written notification from the Certification Officer, and he/she will be placed on probation for one long semester. If the deficiency is not corrected by the end of the probationary period, the student will be removed from the program and must reapply for admission to the Teacher Education Program to be eligible for enrollment in additional professional education courses. A student must be in good standing to clinical teach.

In order to retain full admission in the Teacher Education Program, students must maintain continuous enrollment in the university and demonstrate progress towards completing all certification requirements. Failure to attend for two consecutive long semesters or graduating non-certified constitutes automatic withdrawal from the program. If a student changes their major/concentration to one that does not lead to **teacher** certification at Tarleton, they will be removed from the program after one completed long semester under the new major/concentration. If a student is removed from the program for one of these reasons, the student must reapply for admission to the Teacher Education Program when reenrolling at Tarleton or changing their major/concentration back. Educator Preparation Services kindly requests that any student no longer planning to complete the Teacher Education Program at Tarleton submit a **Request to Withdraw from the Teacher Education Program form**.

Tarleton State University reserves the right to monitor a student's professional ethics according to those standards specified in the Code of Ethics and Standard Practices for Texas Educators (adopted by the Teachers' Professional Practice Commission, revised December 2010) as it relates to the performance of his or her role as a clinical teacher, in a field-based activity in the elementary or secondary schools, or in a university classroom. Appropriate disciplinary action, which may include removal from the Teacher Education Program, may be instituted for violations of ethical conduct or professionalism.

Admission to Teacher Residency/Clinical Teaching

Prior to admission to teacher residency or clinical teaching, students must be admitted to the Tarleton Teacher Education Program (see "Admission to the Teacher Education Program" in this section of the catalog). Students are urged to study requirements for admission and retention in the program. Application for clinical teaching must be submitted to Educator Preparation Services no later than September 30 of the fall semester or February 3 of the spring semester prior to the corresponding fall or spring semester in which the student expects to clinical teach. (i.e. Application for clinical teaching must be submitted one year before the semester in which the student expects to clinical teach.) Application for teacher residency will be discussed in the beginning of the block 2 course and due shortly thereafter.

Candidates for certification who do not satisfactorily complete teacher residency/clinical teaching maybe dropped from the Teacher Education Program. In order to regain eligibility for clinical teaching and be recommended for certification, a candidate may need to reapply and be admitted to the Teacher Education Program.

To be admitted to teacher residency/clinical teaching, all admission requirements to the Tarleton Teacher Education Program must be maintained. Moreover, the following requirements must be completed:

Before being admitted to Teacher Residency/Clinical Teaching, each candidate must meet the following requirements:

1. Senior classification and prior admission to the Teacher Education Program;
2. All Teacher Education Admission/Retention requirements must be met;
3. Any Teacher Education Program probation must have been rectified and the student returned to good standing;
4. Formal approval of the Tarleton Educator Preparation Council;
5. Removal of all incomplete grades prior to the teacher residency/clinical teaching orientation;
6. All testing requirements completed (vary by semester and certification area)

In addition, each teacher resident/clinical teacher must meet specific program requirements found below:

Elementary Teacher Education majors:

ALL coursework required for degree, with the exception of EDUC 4335 and EDUC 4690, must be completed prior to yearlong residency. Any exception to this requirement will require Department Head approval. Yearlong residents will follow departmental protocols.

Secondary and All Level Certifications:

At least 75% of the hours in each certification field (right-hand side of certificate plan) must be completed prior to yearlong residency; however, it is highly advisable that candidates complete all degree requirements, with the exception of EDUC 4335 and EDUC 4690, prior to yearlong residency.

Placement of Clinical Teachers

Educator Preparation Services (EPS) governs the placement of yearlong residency teachers. Placements are full-day (expect 8 hours per day, 5 days per week), and 14-16 weeks in duration as determined by your program, accumulating a minimum of 640 hours. (Students are not allowed to take additional courses during their yearlong residency semester.) It is advised all students must request a placement location from a predetermined list of cooperating school districts and campuses within a 60-mile radius of the Tarleton campus where they attend classes. All placements are made by Educator Preparation Services and are subject to change based on district, campus, and cooperating teacher availability.

Placement of Teacher Residents

Educator Preparation Services (EPS) governs the placement of teacher residents. Placements are full-day (expect 8 hours per day, 4 days per week), and 28-32 weeks in duration as determined by your program, accumulating a minimum of 640 hours. All students will be placed with partner school districts that are in the general geographical area of the Tarleton campus where they attend classes. All placements are made by Educator Preparation Services and are subject to change based on district, campus, and cooperating teacher availability.

Obtaining a Teaching Certificate

The Certification Officer must verify the following before a student will be recommended for certification online:

1. Degree earned;
2. Passing scores on all TExES tests required for initial certification;
3. Completion of all course work on certification plan;
4. Written documentation and advisor approval for course substitutions; and
5. All Teacher Education Program requirements continue to be met.

Testing for Certification

In addition to degree requirements, teacher education candidates must attain passing scores on the Texas Examination of Educator Standards (TExES) which are required by the state for teacher certification. Because Tarleton State University must verify eligibility for the TExES, candidates should consult with their academic advisor, Department Head, Program Director, or the Coordinator for Certification Testing and Program Accountability to determine when they are eligible to begin testing and when exams need to be passed. However, detailed information will be provided in designated education courses required for all candidates that thoroughly covers the testing requirements and process.

All traditional candidates currently and newly admitted to the Teacher Education Program and those in a yearlong residency are required to pass **ALL** TExES exams (including PPR, Content(s), Science of Teaching Reading for candidates seeking EC-6 and some 4-8 certifications, and any Supplemental (ESL) if applicable) related to the certification area(s) being sought. Passing scores results must be posted to the testing system by August 1st for fall semester yearlong residency and December 15th for spring semester yearlong residency. Candidates should keep in mind that score report availability typically ranges from 3-5 days from the exam date but can also take considerably longer depending on the individual exam. It is important to plan accordingly and check each and every exam posting date at the time of registration. Failure to have posted passing scores for all exams by those dates will result in postponement of yearlong residency until a subsequent semester when passing scores have been obtained.

All traditional candidates completing a **yearlong residency** experience will be required to meet very specific test by, retest by, and pass by dates for all required TExES exams that are published and distributed during the Block 2 semester. Candidates who may need to delay either the start of the Teacher Residency 1, Teacher Residency 2, or final yearlong residency semester will need to follow whatever requirements are in place at that point in time should they change. Program continuation is contingent in part on meeting the established testing guidelines. Failure to meet the testing guidelines will result in removal from the teacher residency experience and the candidate being changed to a traditional clinic teaching model once all exams have been passed and meet the score posting criteria.

Registration information for the TExES may be obtained by visiting www.tarleton.edu/eps/testing (http://www.tarleton.edu/eps/testing/), or by contacting the Coordinator for Certification Testing and Program Accountability in Educator Preparation Services, Suite 101, Mathematics Building or by calling 254-968-1908.

Transfer Students

Tarleton State University welcomes students who transfer credits from other universities or neighboring community colleges. Persons seeking elementary certification will work toward the Bachelor of Science in Elementary Education. Students will be assigned to a specific academic advisor to evaluate transfer credits and plan a course of study. Transfer students should contact the Department of Curriculum and Instruction (E.J. Howell Building Room 320; phone 254-968-9097).

Transfer students working toward secondary and all-level certification will be advised in the academic department of their major. Information about education courses may be obtained in the Department of Curriculum and Instruction (E.J. Howell Building, Room 320; Phone 254-968-9097).

Policies governing the acceptance of transfer course work for credit toward teacher certification include the following:

1. All transfer students are required to submit official transcripts to the University Admissions Office for analysis. The Certification Officer will require official transcripts to develop certification plans for students who already hold a bachelor's degree.
2. Transfer students from other Texas institutions and institutions in other states are expected to meet Tarleton's program requirements for certification.
3. Department Heads reserve the right to accept or decline the use of courses on the certificate plan based on content alignment and currency. Such decisions are based on the background needed to be an effective public school teacher. General Education Requirements (core curriculum courses) do not have an age limitation.
4. Typically, students will not be allowed to transfer more than three hours of professional developmental (education) course work into the program at Tarleton and will be required to meet all institutional requirements for the degree and certification.
5. A minimum of one-third of the semester hours required in each teaching field or areas of emphasis sought must be completed at Tarleton.

Note: Individuals who have a degree and a valid teaching certificate from another state and who seek Texas teacher certification must apply directly to the Texas Education Agency to obtain their credentials.

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Bachelor of Science in Elementary Teacher Education

The Bachelor of Science in Elementary Teacher Education is the degree leading to a variety of teacher certifications. Through this degree students obtain rich content preparation with a strong emphasis in teaching reading and language arts. The Bachelor of Science in Elementary Teacher Education with teacher certification is designed to develop school wide teacher-leaders and educational change agents. The curriculum is grounded in research; educational policy; teaching experiences; theories of teaching and learning; technology application and digital literacy; effective instruction; and the use of assessment and data to improve education for all. Students in the Department of Curriculum & Instruction are afforded opportunities to collaborate within a professional learning network of varied educators. The objective is to develop teachers who are reflective, well prepared, effective, and student focused educators ready to become leaders of classrooms in the schools of our state.

All of the teacher certification programs in Curriculum & Instruction include specialized coursework, mentorship, and a myriad of authentic teaching experiences that develop the knowledge, skills, and ethical disposition to effectively meet the current demands of educational careers. Students are allowed opportunities to have authentic field experiences as part of their course work in public schools to increase their understanding of the teaching profession and putting into practice the skills and knowledge they are learning in the college classroom.

Elementary Certification

The Bachelor of Science in Elementary Teacher Education will help students master teaching skills and specialized knowledge in an academic discipline. All degrees offer Texas Teacher Certification to allow students to teach at the primary levels listed below. Undergraduate students who are seeking initial teacher certification through the Tarleton Teacher Education Program experience a highly structured program from the time they start their application until they complete all field-based experiences, testing, and recommendation for certification.

Application for admission to the Tarleton Teacher Education Program must be made during the junior year while enrolled in EDUC 3320 Foundations of Teaching: Elementary (EC-6) Classrooms. Requirements for admission, retention, and admission to student teaching are described in the College of Education section of this catalog. Prior to enrolling in any teacher education course work, students must complete a minimum of 60 hours of coursework, excluding developmental courses.

Secondary (4-8 and High School) and All-Level Certification

The Department of Curriculum & Instruction offers secondary (4-8 and high school) degree programs in mathematics, science, social studies, English and also collaborates with other disciplines to provide the necessary coursework and training to obtain Texas Teacher certification at the Secondary level in All-level Agriculture Education, Music, Spanish and Physical Education. Students will also take professional education courses to meet certification requirements.

Students obtain academic advisement for secondary and all-level certification programs in the department. Application for admission to the Tarleton Teacher Education Program must be made during the junior year while enrolled in EDUC 3321. Requirements for admission, retention, and admission to student teaching are described in the College of Education section of this catalog. Prior to enrolling in any teacher education course work, students must complete a minimum of 60 hours of coursework, excluding developmental courses.

Elementary Teacher Education Program Requirements

The Bachelor of Science Degree in Elementary Teacher Education leads to teacher certification:

- Early Childhood through Grade 3 with Bilingual or ESL
- Early Childhood through Grade 6 with Bilingual or ESL
- All Level Special Education with ESL.

The program follows the framework standards developed by the State Board of Educator Certification (SBEC), the Texas Education Agency, and the Texas Higher Education Coordinating Board.

The typical curriculum for the Bachelor of Science Degree in Elementary Teacher Education requires a minimum of 120 semester hours and a minimum of 30 semester hours of advanced credit (3000 level or above).

General Education Requirements (p. 396)		42
ENGL 1301 [shared] [WI (p. 396)]	Composition I	
ENGL 1302 [shared] [WI (p. 396)]	Composition II	
ENGL Sophomore literature [shared]		
MATH 1314 [shared]	College Algebra	
MATH 3303	Concepts of Elementary Mathematics I (MATH 1350 also accepted)	3
MATH 3305	Concepts of Elementary Mathematics II (MATH 1351 also accepted)	3
BIOL Core [shared]		
PHYS Core [shared]		
Life or Physical Science Core [shared]		
Select one of the following [shared]:		
ECON 1301	Introduction To Economics	
ECON 2301	Principles of Macroeconomics	
GEOG 1303	World Regional Geography	
Select one of the following:		3
EDUC 1301	Introduction to the Teaching Profession	
TECA 1311	Educating Young Children	
EDUC 2301	Introduction to Special Populations	3
READ 3356	Content Area Literacy for Interdisciplinary Studies	3
READ 3311	Literacy for the Early Years	3
EDUC 4335	Issues of Professionalism	3
EDUC 4692	Teacher Residency II	6
Total Hours		**69**

All Level Special Education EC-6 Generalist with ESL

EDSP 4363	Teaching Learners with Learning Disabilities	3
EDSP 2362	Special Education Rules and Regulations	3
EDSP 4364	Teaching Learners with Developmental Disabilities	3
EDSP 4365	Behavior Management for Exceptional Learners	3
READ 4309 [WI (p. 396)]	Reading and Writing Across the Curriculum	3
READ 3321	Early Childhood Literacy Field Implementation	3
EDUC 3371	Ethical, Legal, and Technological Issues in Education	3
KINE 3352	Principles of Health and Fitness for Children	3
or KINE 3380	Adapted Physical Activity	
READ 4384 [WI (p. 396)]	Literacy and Reading Problems Assessment for the Middle Years	3
EDUC 3310	Foundations of Bilingual and English as a Second Language Education	3
EDUC 3320	Foundations of Teaching: Elementary (EC-6) Classrooms	3
EDUC 4391	Teacher Residency I	3
EDUC 3385	Science Teaching Implementation	3
EDUC 3304	Early Childhood Curriculum, Instruction and Environments	3

EDUC 3331	Methodology Field Implementation	3
EDUC 3395	Methods of Teaching Integrated Social Studies and English Language Arts/Reading	3
EDUC 3375	Methodology for ESL Learners in K-12 Classrooms	3
Select one of the following		3
TECA 1354	Child Growth and Development	
PSYC 2308	Child Psychology	
PSYC 3303	Educational Psychology	
CHFS 3300	Child Development: Theory, Research, and Practice	
Total Hours		**54**

EC-3 With ESL

EDUC 2330	Adapting Instruction for Today's Learners	3
EDUC 3320	Foundations of Teaching: Elementary (EC-6) Classrooms	3
EDUC 3375	Methodology for ESL Learners in K-12 Classrooms	3
KINE 3352	Principles of Health and Fitness for Children	3
CHFS 3344	Creative Arts and Literature for Children	3
EDUC 3385	Science Teaching Implementation	3
EDUC 3395	Methods of Teaching Integrated Social Studies and English Language Arts/Reading	3
CHFS 4350 [WI (p. 396)]	Policies and Ethical Standards	3
EDUC 3304	Early Childhood Curriculum, Instruction and Environments	3
EDSP 4367	Programming for Young Children with Disabilities	3
EDUC 3310	Foundations of Bilingual and English as a Second Language Education	3
EDUC 3331	Methodology Field Implementation	3
READ 3321	Early Childhood Literacy Field Implementation	3
READ 4384 [WI (p. 396)]	Literacy and Reading Problems Assessment for the Middle Years	3
READ 4309 [WI (p. 396)]	Reading and Writing Across the Curriculum	3
CHFS 3300	Child Development: Theory, Research, and Practice	3
or TECA 1354	Child Growth and Development	
EDUC 4391	Teacher Residency I	3
EDUC 3371	Ethical, Legal, and Technological Issues in Education	3
Total Hours		**54**

EC-6 Core Subjects with Bilingual Supplemental (Spanish)

EDUC 2330	Adapting Instruction for Today's Learners	3
KINE 3352	Principles of Health and Fitness for Children	3
EDSP 4363	Teaching Learners with Learning Disabilities	3
READ 3321	Early Childhood Literacy Field Implementation	3
READ 4384 [WI (p. 396)]	Literacy and Reading Problems Assessment for the Middle Years	3
EDUC 3310	Foundations of Bilingual and English as a Second Language Education	3
READ 4309 [WI (p. 396)]	Reading and Writing Across the Curriculum	3
EDUC 3320	Foundations of Teaching: Elementary (EC-6) Classrooms	3
EDUC 4391	Teacher Residency I	3
EDUC 3385	Science Teaching Implementation	3
EDUC 3395	Methods of Teaching Integrated Social Studies and English Language Arts/Reading	3
EDUC 3304	Early Childhood Curriculum, Instruction and Environments	3
EDUC 3331	Methodology Field Implementation	3
EDUC 3371	Ethical, Legal, and Technological Issues in Education	3
EDUC 3315	Literacy Instruction for Bilingual Classrooms	3
EDUC 4305	Content Area Instruction in Bilingual Classrooms	3
Select one of the following		3
TECA 1354	Child Growth and Development	
PSYC 2308	Child Psychology	
PSYC 3303	Educational Psychology	
CHFS 3300	Child Development: Theory, Research, and Practice	
Total Hours		**51**

EC-6 Core Subjects with ESL Supplemental

MATH 4305	Concepts of Elementary Mathematics III	3
EDUC 2330	Adapting Instruction for Today's Learners	3
KINE 3352	Principles of Health and Fitness for Children	3
EDSP 4363	Teaching Learners with Learning Disabilities	3
READ 3321	Early Childhood Literacy Field Implementation	3
EDUC 3375	Methodology for ESL Learners in K-12 Classrooms	3
READ 4384 [WI (p. 396)]	Literacy and Reading Problems Assessment for the Middle Years	3
EDUC 3310	Foundations of Bilingual and English as a Second Language Education	3

READ 4309 [WI (p. 396)]	Reading and Writing Across the Curriculum	3
EDUC 3320	Foundations of Teaching: Elementary (EC-6) Classrooms	3
EDUC 4391	Teacher Residency I	3
EDUC 3385	Science Teaching Implementation	3
EDUC 3395	Methods of Teaching Integrated Social Studies and English Language Arts/Reading	3
EDUC 3304	Early Childhood Curriculum, Instruction and Environments	3
EDUC 3331	Methodology Field Implementation	3
Select one of the following		3
TECA 1354	Child Growth and Development	
PSYC 2308	Child Psychology	
PSYC 3303	Educational Psychology	
CHFS 3300	Child Development: Theory, Research, and Practice	
EDUC 3371	Ethical, Legal, and Technological Issues in Education	3
Total Hours		**51**

Secondary Teacher Education Program Requirements

EDUC 1301	Introduction to the Teaching Profession	3
or TECA 1311	Educating Young Children	
EDUC 2301	Introduction to Special Populations	3
Total Hours		**6**

General Education Requirements (p. 396)		**42**
ENGL 1301 [shared]		
ENGL 1302 [shared]		
ENGL Sophomore Literature TSU Core: Language, Philosophy, & Culture [shared]		
HUMA 1315 [shared]	Fine Arts Appreciation	
EDUC 3330	Effective Instruction for Middle and Secondary Educators	3
EDUC 3321 [WI (p. 396)]	Foundations of Teaching: Middle and Secondary Classrooms	3
EDUC 3341	Teaching for Understanding: Supporting Every Learner in the Middle and Secondary Classroom	3
EDUC 3371	Ethical, Legal, and Technological Issues in Education	3
EDUC 4335	Issues of Professionalism	3
EDUC 4391	Teacher Residency I	3
EDUC 4692	Teacher Residency II	6
EDSP 4361	Teaching Strategies for Adolescent Students with Learning Disabilities	3
READ 3351 [WI (p. 396)]	Content Area Literacy	3
Total Hours		**72**

4-8 Teacher Education English, Language Arts, & Reading, and Social Studies with ESL

MATH 1314 [shared]	College Algebra	
ENGL 3320	Advanced Grammar	3
READ 3311	Literacy for the Early Years	3
ENGL 3308 [WI (p. 396)]	Introduction to Public and Professional Writing	3
EASC 2310 [shared]	Earth Systems Science	
Select one of the following		3
HIST 2321	World Civilizations I	
HIST 2322	World Civilizations II	
Select one of the following		3
PSYC 2308	Child Psychology	
PSYC 3303	Educational Psychology	
GEOG 1303	World Regional Geography	3
SOCI 1301	Introductory Sociology	3
ADVANCED LITERATURE CLASS		3
ADVANCED HISTORY ELECTIVE		3
EDUC 3395	Methods of Teaching Integrated Social Studies and English Language Arts/Reading	3
EDUC 3375	Methodology for ESL Learners in K-12 Classrooms	3
EDUC 4350	Second Language Acquisition and Assessment for ESL Learners	3
ADVANCED HISTORY ELECTIVE		3
READ 4384 [WI (p. 396)]	Literacy and Reading Problems Assessment for the Middle Years	3
EDUC 3310	Foundations of Bilingual and English as a Second Language Education	3
COMM 2302	Business and Professional Speaking	3
Select one of the following: [shared]		
COMM 1311	Introduction to Speech Communication	
COMM 1315	Public Speaking	
CHEM 1302 [shared]	Essential Elements of Chemistry	
PHYS 1302 [shared]	Essential Elements of Physics	
Select one of the following [shared]		
ECON 1301	Introduction To Economics	

ECON 2301	Principles of Macroeconomics	
Total Hours		**48**

4-8 Teacher Education English, Language Arts, & Reading, and Social Studies Without ESL

MATH 1314 [shared]	College Algebra	
Select one of the following		3
HIST 2321	World Civilizations I	
HIST 2322	World Civilizations II	
SOCI 1301	Introductory Sociology	3
Select one of the following		3
PSYC 2308	Child Psychology	
PSYC 3303	Educational Psychology	
GEOG 1303	World Regional Geography	3
ANY ADVANCED LITERATURE		3
ANY ADVANCED HISTORY ELECTIVE		3
EDUC 3395	Methods of Teaching Integrated Social Studies and English Language Arts/Reading	3
ENGL 3320	Advanced Grammar	3
ENGL 3308 [WI (p. 396)]	Introduction to Public and Professional Writing	3
ANY ADVANCED HISTORY OR SOCIAL SCIENCE ELECTIVE		3
READ 4384 [WI (p. 396)]	Literacy and Reading Problems Assessment for the Middle Years	3
COMM 2302	Business and Professional Speaking	3
EDUC 3310	Foundations of Bilingual and English as a Second Language Education	3
EASC 2310 [shared]	Earth Systems Science	
READ 3311	Literacy for the Early Years	3
Select one of the following: [shared]		
COMM 1311	Introduction to Speech Communication	
COMM 1315	Public Speaking	
CHEM 1302 [shared]	Essential Elements of Chemistry	
PHYS 1302 [shared]	Essential Elements of Physics	
Select one of the following [shared]		
ECON 1301	Introduction To Economics	
ECON 2301	Principles of Macroeconomics	
Total Hours		**42**

4-8 Teacher Education Math and Science With ESL

MATH 1314 [shared]	College Algebra	
MATH 1342	Elementary Statistical Methods	3
BIOL 1406	Biology for Science Majors	4
MATH 3302	Principles of Geometry	3
MATH 2412	Precalculus Math	4
BIOL 1407	Biology for Science Majors II	4
GEOL 1307	Introduction to Environmental Science	3
MATH 2413	Calculus I	4
MATH 3303	Concepts of Elementary Mathematics I	3
READ 3311	Literacy for the Early Years	3
MATH 3305	Concepts of Elementary Mathematics II	3
EDUC 3385	Science Teaching Implementation	3
Select one of the following		3
PSYC 2308	Child Psychology	
PSYC 3303	Educational Psychology	
Select one of the following		3
MATH 4304	Survey of Mathematical Ideas I	
MATH 4305	Concepts of Elementary Mathematics III	
BIOL 4401	Ecology	4
EDUC 3375	Methodology for ESL Learners in K-12 Classrooms	3
EDUC 4350	Second Language Acquisition and Assessment for ESL Learners	3
EASC 2310 [shared]	Earth Systems Science	
CHEM 1302 [shared]	Essential Elements of Chemistry	
PHYS 1302 [shared]	Essential Elements of Physics	
Total Hours		**53**

4-8 Teacher Education Math and Science Without ESL

MATH 1314 [shared]	College Algebra	
MATH 1342	Elementary Statistical Methods	3
BIOL 1406	Biology for Science Majors	4

MATH 3302	Principles of Geometry	3
MATH 2412	Precalculus Math	4
BIOL 1407	Biology for Science Majors II	4
MATH 2413	Calculus I	4
MATH 3303	Concepts of Elementary Mathematics I	3
GEOL 1307	Introduction to Environmental Science	3
EASC 2310 [shared]	Earth Systems Science	
CHEM 1302 [shared]	Essential Elements of Chemistry	
PHYS 1302 [shared]	Essential Elements of Physics	
EDUC 3385	Science Teaching Implementation	3
Select one of the following		3
PSYC 2308	Child Psychology	
PSYC 3303	Educational Psychology	
Select one of the following		3
MATH 4304	Survey of Mathematical Ideas I	
MATH 4305	Concepts of Elementary Mathematics III	
BIOL 4401	Ecology	4
READ 3311	Literacy for the Early Years	3
MATH 3305	Concepts of Elementary Mathematics II	3
Total Hours		**47**

4-8 Teacher Education Math With ESL

MATH 1314 [shared]	College Algebra	
MATH 1316	Plane Trigonometry	3
MATH 2413	Calculus I	4
Select one of the following		3
MATH 1342	Elementary Statistical Methods	
MATH 3450	Principles of Bio-Statistics	
MATH 3302	Principles of Geometry	3
MATH 3303	Concepts of Elementary Mathematics I	3
MATH 3305	Concepts of Elementary Mathematics II	3
MATH 4304	Survey of Mathematical Ideas I	3
MATH 4305	Concepts of Elementary Mathematics III	3
BIOL 2310	Essential Elements of Biology	3
Select one of the following		3
PSYC 2308	Child Psychology	
PSYC 3303	Educational Psychology	
EDUC 3375	Methodology for ESL Learners in K-12 Classrooms	3
EDUC 4350	Second Language Acquisition and Assessment for ESL Learners	3
READ 4384 [WI (p. 396)]	Literacy and Reading Problems Assessment for the Middle Years	3
EDUC 3310	Foundations of Bilingual and English as a Second Language Education	3
EASC 2310 [shared]	Earth Systems Science	
CHEM 1302 [shared]	Essential Elements of Chemistry	
PHYS 1302 [shared]	Essential Elements of Physics	
READ 3311	Literacy for the Early Years	3
Total Hours		**47**

4-8 Teacher Education Math Without ESL

MATH 1314 [shared]	College Algebra	
MATH 1316	Plane Trigonometry	3
MATH 2413	Calculus I	4
MATH 3302	Principles of Geometry	3
MATH 3303	Concepts of Elementary Mathematics I	3
MATH 3305	Concepts of Elementary Mathematics II	3
MATH 4304	Survey of Mathematical Ideas I	3
Select one of the following		3
MATH 1342	Elementary Statistical Methods	
MATH 3450	Principles of Bio-Statistics	
MATH 4305	Concepts of Elementary Mathematics III	3
BIOL 2310	Essential Elements of Biology	3
Select one of the following		3
PSYC 2308	Child Psychology	
PSYC 3303	Educational Psychology	
READ 3311	Literacy for the Early Years	3
READ 4384 [WI (p. 396)]	Literacy and Reading Problems Assessment for the Middle Years	3
EASC 2310	Earth Systems Science	3

CHEM 1302 [shared]	Essential Elements of Chemistry	
PHYS 1302 [shared]	Essential Elements of Physics	
EDUC 3310	Foundations of Bilingual and English as a Second Language Education	3
Total Hours		**44**

4-8 Teacher Education Science With ESL

MATH 1314 [shared]	College Algebra	
BIOL 1406	Biology for Science Majors	4
BIOL 1407	Biology for Science Majors II	4
BIOL 2310	Essential Elements of Biology	3
BIOL 4401	Ecology	4
GEOL 1307	Introduction to Environmental Science	3
Select one of the following		3
PSYC 2308	Child Psychology	
PSYC 3303	Educational Psychology	
MATH 3303	Concepts of Elementary Mathematics I	3
MATH 3305	Concepts of Elementary Mathematics II	3
MATH 4305	Concepts of Elementary Mathematics III	3
EDUC 3385	Science Teaching Implementation	3
EDUC 3375	Methodology for ESL Learners in K-12 Classrooms	3
EDUC 4350	Second Language Acquisition and Assessment for ESL Learners	3
READ 4384 [WI (p. 396)]	Literacy and Reading Problems Assessment for the Middle Years	3
EASC 2310 [shared]	Earth Systems Science	
CHEM 1302 [shared]	Essential Elements of Chemistry	
PHYS 1302 [shared]	Essential Elements of Physics	
EDUC 3310	Foundations of Bilingual and English as a Second Language Education	3
READ 3311	Literacy for the Early Years	3
Total Hours		**48**

4-8 Teacher Education Science Without ESL

MATH 1314 [shared]	College Algebra	
BIOL 1406	Biology for Science Majors	4
BIOL 1407	Biology for Science Majors II	4
BIOL 2310	Essential Elements of Biology	3
BIOL 4401	Ecology	4
GEOL 1307	Introduction to Environmental Science	3
Select one of the following		3
PSYC 2308	Child Psychology	
PSYC 3303	Educational Psychology	
MATH 3303	Concepts of Elementary Mathematics I	3
MATH 3305	Concepts of Elementary Mathematics II	3
MATH 4305	Concepts of Elementary Mathematics III	3
EDUC 3385	Science Teaching Implementation	3
READ 4384 [WI (p. 396)]	Literacy and Reading Problems Assessment for the Middle Years	3
EASC 2310 [shared]	Earth Systems Science	
CHEM 1302 [shared]	Essential Elements of Chemistry	
PHYS 1302 [shared]	Essential Elements of Physics	
EDUC 3310	Foundations of Bilingual and English as a Second Language Education	3
READ 3311	Literacy for the Early Years	3
Total Hours		**42**

7-12 English Language Arts

ENGL 3301 [WI (p. 396)]	Readings in American Literature	3
ENGL 3320	Advanced Grammar	3
ENGL 3308 [WI (p. 396)]	Introduction to Public and Professional Writing	3
ENGL 3370	An Introduction to Linguistics	3
ENGL 3315 [WI (p. 396)]	Foundations of Literary Research and Analysis	3
ENGL 4300	Shakespeare	3
ENGL 4301 [WI (p. 396)]	Readings in British Literature	3
ENGL 4311 [WI (p. 396)]	Discourse Studies	3
ANY UPPER LEVEL ENGL ELECTIVE		3
EDUC 3310	Foundations of Bilingual and English as a Second Language Education	3
Select one of the following:		3
PSYC 2308	Child Psychology	
PSYC 3303	Educational Psychology	

ENGL 3396	Professional Development for English Majors	3
ENGL 2307	Introduction to Creative Writing	3
EDSP 4363	Teaching Learners with Learning Disabilities	3
Total Hours		**42**

7-12 History

GEOG 1303	World Regional Geography	3
GEOG 1320	Introduction to Human Geography	3
GEOG 2301	The Geography of Texas	3
GEOG 3312 [WI (p. 396)]	Economic Geography	3
ECON 2301	Principles of Macroeconomics	3
ECON 2302	Principles of Microeconomics	3
HIST 2321	World Civilizations I	3
HIST 2322	World Civilizations II	3
HIST 3340	Historical Methods	3
HIST 4390 [WI (p. 396)]	History Capstone	3
EDUC 3395	Methods of Teaching Integrated Social Studies and English Language Arts/Reading	3
PSYC 3303	Educational Psychology	3
or PSYC 2308	Child Psychology	
EDUC 3310	Foundations of Bilingual and English as a Second Language Education	3
Advanced HIST Elective		3
Total Hours		**42**

7-12 Life Science

MATH 2412 [shared]	Precalculus Math	
BIOL 1406 [shared]	Biology for Science Majors	
CHEM 1311 [shared]	College Chemistry I (Lecture)	
CHEM 1111 [shared]	College Chemistry I (Laboratory)	
BIOL 1407	Biology for Science Majors II	4
BIOL 2300	Cell Biology	3
BIOL 3303	Genetics	3
BIOL 3103	Genetic Techniques	1
BIOL 3353	Ecology and Evolution	3
BIOL 3415	Plant Taxonomy	4
BIOL 4401	Ecology	4
or BIOL 4462	Ichthyology	
BIOL 4451	Mammalogy	4
or BIOL 4430	Ornithology	
BIOL 3449	Animal Diversity	4
BIOL 4320	Behavioral Ecology	3
EDUC 3385	Science Teaching Implementation	3
PSYC 3303	Educational Psychology	3
or PSYC 2308	Child Psychology	
EDUC 3310	Foundations of Bilingual and English as a Second Language Education	3
Total Hours		**42**

7-12 Mathematics

PHYS 2425 [shared]	University Physics I	
CHEM 1311 [shared]	College Chemistry I (Lecture)	
CHEM 1111 [shared]	College Chemistry I (Laboratory)	
MATH 2413 [shared]	Calculus I	
MATH 2414	Calculus II	4
MATH 3301	Number Theory	3
MATH 3311	Probability and Statistics I	3
MATH 3318	Linear Algebra	3
MATH 3320	Foundations of Mathematics	3
MATH 3433	Calculus III	4
MATH 4302	College Geometry	3
MATH 4304	Survey of Mathematical Ideas I	3
MATH 4308	Survey of Mathematical Ideas II	3
MATH 4309 [WI (p. 396)]	Advanced Analysis	3
MATH 4311	Probability and Statistics II	3
MATH 4332 [WI (p. 396)]	Abstract Algebra	3
Select one of the following		3
PSYC 2308	Child Psychology	

PSYC 3303	Educational Psychology	
EDUC 3310	Foundations of Bilingual and English as a Second Language Education	3
Total Hours		**44**

7-12 Science Composite

MATH 2412 [shared]	Precalculus Math	
BIOL 1406 [shared]	Biology for Science Majors	
CHEM 1311 [shared]	College Chemistry I (Lecture)	
CHEM 1111 [shared]	College Chemistry I (Laboratory)	
BIOL 1407	Biology for Science Majors II	4
CHEM 1312	College Chemistry II (Lecture)	3
CHEM 1112	College Chemistry II (Laboratory)	1
PHYS 1401	College Physics I	4
PHYS 1402	College Physics II	4
GEOL 1403	Physical Geology	4
GEOL 1404	Historical Geology	4
EASC 3320	Astronomy	3
Advanced EASC or GEOL Electives		6
EDUC 3385	Science Teaching Implementation	3
EDUC 3310	Foundations of Bilingual and English as a Second Language Education	3
Select one of the following:		3
PSYC 2308	Child Psychology	
PSYC 3303	Educational Psychology	
Total Hours		**42**

7-12 Social Studies

ANTH 2351	Cultural Anthropology	3
ECON 2301	Principles of Macroeconomics	3
ECON 2302	Principles of Microeconomics	3
GEOG 1303	World Regional Geography	3
GEOG 1320	Introduction to Human Geography	3
GEOG 2301	The Geography of Texas	3
GEOG 3312 [WI (p. 396)]	Economic Geography	3
HIST 2321	World Civilizations I	3
HIST 2322	World Civilizations II	3
HIST 3340	Historical Methods	3
EDUC 3395	Methods of Teaching Integrated Social Studies and English Language Arts/Reading	3
PSYC 3303	Educational Psychology	3
or PSYC 2308	Child Psychology	
EDUC 3310	Foundations of Bilingual and English as a Second Language Education	3
Advanced HIST Elective		3
Total Hours		**42**

Secondary and All-Level Educator Certificates

The State Board of Educator Certification (SBEC) adopted Standards Based Educator Preparation programs aligned with the Texas Essential Knowledge and Skills (TEKS). Tarleton State University currently offers the following secondary (4-8 and high school) and all-level educator certificates developed within the framework of SBEC 2000 Standards. Degree and certification requirements, as well as departmental contacts are found at this website https://www.tarleton.edu/eps/tep/apply-now/.

- 4-8 Math with ESL
- 4-8 Science with ESL
- 4-8 English, Language Arts, & Reading with ESL
- 7-12 English Language Arts and Reading
- 7-12 History
- 7-12 Life Science
- 7-12 Math
- 7-12 Science
- 7-12 Social Studies
- 6-12 Agriculture, Food, & Natural Resources
- All-Level Art
- All-Level Music (Instrumental or Vocal)
- All-Level Physical Education

All-Level Spanish

All-Level Theatre

Supplemental Certifications [1]

[1] May be added to grade level certificate.

English as a Second LanguageE (ESL)

ENGL 3320	Advanced Grammar	3
ENGL 3370	An Introduction to Linguistics	3
PSYC 3320	Psycholinguistics	3
EDUC 3310	Foundations of Bilingual and English as a Second Language Education	3
Total Hours		**12**

Special Education

4-8 & 7-12:		
EDSP 2362	Special Education Rules and Regulations	3
EDSP 4363	Teaching Learners with Learning Disabilities	3
EDSP 4364	Teaching Learners with Developmental Disabilities	3
EDSP 4365	Behavior Management for Exceptional Learners	3
Total Hours		**12**

Professors

- Dr. Melissa Roberts Becker
- Dr. Lisa Colvin
- Dr. Jim Gentry

Associate professors

- Dr. Anna Fox
- Dr. Elizabeth Garcia
- Dr. Ricardo Lumbreras
- Ms. Jennifer McGregor

Assistant professors

- Dr. Donna Baumgardner
- Dr. Marisa Hellawell
- Dr. Johnathan Hill
- Dr. Eliel Hinojosa Dr
- Dr. Gwinn North
- Dr. Crystal Rose
- Dr. Ida Smith
- Dr. Elizabeth Vanderburg
- Dr. Melissa Wicker

Instructor

- Dr. Tiffany Allen
- Ms Anna Curtis
- Ms. Jamie Leinhauser
- Ms. Carol Mize
- Ms. Marilisa Moore
- Ms. Mandi Nelson

Coordinator

- Ms. Andrea Sams

Education Courses

EDUC 1000. TCC Dual Admit. 0 Credit Hours (Lecture: 0 Hours, Lab: 0 Hours).

EDUC 1301. Introduction to the Teaching Profession. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An enriched, integrated pre-service course and content experience that provides active recruitment and instructional support of students interested in a teaching career, especially in high needs fields. The course provides students with opportunities to participate in early field observations at all levels of P-12 schools with varied student populations and provides students with support from college and school faculty, preferably in small cohort groups, for the purpose of introduction to and analysis of the culture of schooling and classrooms. Course content should be aligned as applicable with State Board of Education Certification Pedagogy and Professional Responsibilities standards. Course must include a minimum of 16 contact hours of field experience in P-12 classrooms as directed by faculty.

EDUC 2300. Families, School, and Community. 3 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
A study of the child, family, community, and schools, including parent education and involvement, family and community lifestyles, child abuse, and current family life issues. The course includes a service learning component to meet the field experiences requirement. Lab fee: $2.

EDUC 2301. Introduction to Special Populations. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An enriched, integrated pre-service course that provides an overview of schooling and classrooms through the lenses of language, socioeconomic status, ethnicity, and other factors that influence learning, with an emphasis on conditions that support student success. The course provides students with opportunities to participate in early field observations of P- 118 12 special populations and should be aligned as applicable with State Board for Educator Certification Pedagogy and Professional Responsibilities standards. Must include a minimum of 16 contact hours of field experience in P-12 classrooms with special populations.

EDUC 2330. Adapting Instruction for Today's Learners. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course explores key factors that influence curriculum design, instructional strategies, and classroom communication in elementary education. Educators will examine how different backgrounds, traditions, and perspectives shape learning experiences and classroom interactions. The course also provides practical approaches for developing instructional materials and teaching methods that engage all students effectively.

EDUC 3304. Early Childhood Curriculum, Instruction and Environments. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed as a study of all aspects of the early childhood classroom, including developmentally appropriate practices, curriculum, instruction, assessment, classroom management, and the physical environment. Current issues related to early childhood education will be examined. Students will be expected to demonstrate developmentally appropriate effective teaching practices in field-based setting. Prerequisite: Concurrent enrollment in READ 3321.

EDUC 3310. Foundations of Bilingual and English as a Second Language Education. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An examination of the history, philosophies, theoretical and legal foundations regarding Bilingual/English as a Second Language Acquisition. The course is a review of program designs and includes connections to assigned field experiences in a K-12 placement. Prerequisite: Corequisite in EDUC 3321 or EDUC 3320 / READ 3321.

EDUC 3315. Literacy Instruction for Bilingual Classrooms. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An examination of the knowledge and skills required to teach limited English language learners, with an emphasis on program implementation, curriculum, materials, oral language development, literacy development and assessment strategies. Course will be delivered in Spanish and English. Prerequisites: Proficiency in Spanish and EDUC 3310, 3320, and READ 3311.

EDUC 3320. Foundations of Teaching: Elementary (EC-6) Classrooms. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Examination of different techniques in cooperative learning, brain-based learning and motivation to present the pertinent information in a EC-6 classroom setting. Field-based experience provides students with the opportunity to apply and analyze cooperative learning, brain-based learning, and motivation techniques as used in the classroom setting. Technology is applied as a teaching and learning tool through course projects and experiences. In order to complete this course, field experiences in the school setting is required Prerequisite: Junior classification.

EDUC 3321. Foundations of Teaching: Middle and Secondary Classrooms. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
An examination of the characteristics and behavior of the adolescent learner with implications for curriculum, instruction, and lesson planning in the junior/middle and high schools. This course will provide an understanding of the wide range of psychological, social factors that create and affect adolescents in school. Includes emphasis on instructional strategies. In order to complete this course, field experiences in the school setting is required. Prerequisites: Either CHFS 3300, PSYC 2308, or PSYC 3303, Concurrent enrollment in any of the three options is allowed. Student must have 60 earned hours toward degree or certification.

EDUC 3330. Effective Instruction for Middle and Secondary Educators. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This courses focuses on developing strategies that are effective in middle school and secondary classrooms. Candidates will design and plan effective instruction utilizing state standards and best practices. Topics include the lesson planning, assessment, classroom management, instructional models, instructional strategies, instruction methods, and instructional skills. In order to complete this course, field experiences in the school setting is required. Prerequisites: EDUC 3321 (or Department Head approval) and Admission to the Teacher Education Program.

EDUC 3331. Methodology Field Implementation. 3 Credit Hours (Lecture: 1 Hour, Lab: 9 Hours).
This course is designed to examine the relationship between the state adopted curriculum and best practices in the classroom, to include practical experience in developing student learning outcomes, designing lesson plans, and delivering and assessing instruction, as well as incorporating effective classroom management techniques into the classroom. Prerequisites: EDUC 3320 or EDUC 3321 and Admission to the Teacher Education Program.

EDUC 3332. Effective Classroom Management Strategies. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of research-based classroom management practices designed to help teachers create and maintain caring, respectful classroom communities in which learners feel safe, valued, cared about, respected, and empowered. Candidates will understand factors that influence student behavior and learn effective management practices that illicit positive student outcomes. In order to complete this course, field experiences in a school setting is required. Prerequisites: EDUC 3320 or EDUC 3321 and admission to the Teacher Education Program.

EDUC 3341. Teaching for Understanding: Supporting Every Learner in the Middle and Secondary Classroom. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course introduces teaching approaches that consider the backgrounds and experiences of students in middle and secondary classrooms. It focuses on practical strategies for effective instruction, classroom management, and lesson planning while addressing factors that influence learning. Educators will also explore ways to build strong relationships with students, families, and the broader community to support academic success.

EDUC 3371. Ethical, Legal, and Technological Issues in Education. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides educators with an overview of the ethical, legal, and social issues that are unique in the 21st century learning environment. Topics such as learner privacy online, effective application of technology, and issues regarding copyright and intellectual property. Teacher candidates will also examine digital citizenship and contemporary legal issues of the 21st century classrooms. Prerequisite: n/a.

EDUC 3375. Methodology for ESL Learners in K-12 Classrooms. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will introduce students to the various approaches methods and techniques used in the teaching of language components (grammar, vocabulary, pronunciation) and the four language acquisition skills (listening, speaking, reading, writing). This course provides practice in developing and implementing effective language lesson plans along with evaluating and selecting appropriate ESL teaching materials using the sheltered instruction observation protocol framework (SIOP) and computer assisted language learning tools (CALL). Prerequisite: Admittance to the Teacher Education Program, EDUC 3310.

EDUC 3385. Science Teaching Implementation. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will use the Texas Essential Knowledge and Skills (TEKS) as a framework to examine content methodology, skills, and materials necessary to teach science to children in elementary and middle schools. Students will learn how to plan lessons utilizing research-based practices, implement lessons effectively, and reflect on their own science instruction. Course components include hands-on investigations, class discussions, readings, micro-teaching, science notebooks, and field placements with emphasis on developmentally appropriate practices in science instruction. Topics from life science, physical science, earth/space science and nature of science will be covered. Prerequisite: Admission to the Teacher Education Program. Concurrent enrollment in EDUC 3331 or READ 4331.

EDUC 3394. Curr/Meth EC-Grade Four I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An examination of developmentally appropriate educational strategies and instructional techniques in teaching language arts, social studies, and fine arts to children (preschool - 4th grade). Students will be expected to integrate language arts, social studies, and fine arts within the curriculum as well as evaluate curricula materials. Prerequisites: Junior classification and completion of TASP requirement; READ 3311, SOSC 3301, and FINA 1335.

EDUC 3395. Methods of Teaching Integrated Social Studies and English Language Arts/Reading. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of methods, materials, and processes for teaching social studies incorporating ELAR. Topics include the effective implementation of social studies curriculum, instruction, assessment, and evaluation for EC–6 and 4 – 8 teacher candidates. Prerequisite: Admission to the Teacher Education Program. Concurrent enrollment in EDUC 3331 or READ 4331.

EDUC 3396. Curr/Meth EC-Grade Four II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An examination of developmentally appropriate educational strategies and instructional techniques in teaching mathematics and science to children (preschool - 4th grade) within a problem-based learning approach. Special topics include the appropriate use of technology and cooperative grouping and the integration of curriculum within the content areas of mathematics and science. Prerequisites: MATH 3303 and 3305, GEOL 1401, BIOL 2310, admission to the Teacher Education Program.

EDUC 4086. Education Problems. 1-3 Credit Hours (Lecture: 0 Hours, Lab: 1-3 Hours).
A course featuring independent research, reading, and discussion under personal direction of instructor, topics vary according to student need. Open to students of junior or senior classification who have been admitted to the Teacher Education Program and with approval of department head.

EDUC 4304. Early Childhood Environment. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An examination of classroom management, including the physical environment and use of centers, for varied groups of early elementary students. A lab and documentation of directed field experiences are required. Prerequisites: Admission to the Teacher Education Program and concurrent enrollment in READ 4310, EDUC 3310(or completion), and EDUC 4315.

EDUC 4305. Content Area Instruction in Bilingual Classrooms. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An examination of curriculum requirements as applicable to bilingual education, language concepts and proficiencies needed for teaching language arts, math, science and social studies in bilingual classrooms. Students will evaluate commercial and research-based programs in order to adapt materials for students with varying degrees of language and literacy proficiency. Field experiences required. Prerequisites: Admission to the Tarleton Teacher Education Program, EDUC 3310, EDUC 3315, and READ 3311. Proficiency in Spanish.

EDUC 4315. EC - 8 Curriculum, Assessment, and Instruction. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Overview of developmentally appropriate curriculum adhering to state and national standards for grades EC - 8. Prerequisites: Admission to the Tarleton Teacher Education Program and EDUC 3330, and concurrent enrollment in READ 4310 and EDUC 3310 (or completion).

EDUC 4330. Application of Effective Teaching Practices. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Documented field-based experiences are provided in school settings where students will plan and deliver units of instruction, examine various models of instruction, analyze classroom management strategies, and demonstrate competencies in effective teaching practices. Prerequisites: EDUC 3330 and READ 3351/READ 3356.

EDUC 4331. Instructional Strategies for Middle and Secondary Classrooms. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to be an examination of the relationships among local, state, and federal standards to develop instructional strategies derived from research-based practices for middle and secondary classrooms. Field experience required. Prerequisites: EDUC 3321 or EDUC 3320 and Admission to the Teacher Education Program.

EDUC 4335. Issues of Professionalism. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Students synthesize and validate concepts encountered during clinical teaching. Prerequisites: Admission to Clinical Teaching and concurrent enrollment in EDUC 4690(or equivalent).

EDUC 4350. Second Language Acquisition and Assessment for ESL Learners. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will introduce students to second language acquisition theories, the language learning process, and second language assessment in various teaching contexts from the K-12 classroom. Students will compare and contrast different theoretical perspectives of language learning and the language learner. The students will learn about the place of testing and assessment in the ESL classroom, as well as develop the necessary skills to design classroom assessment and be able to use these test qualities to evaluate and guide ESL student learning. Prerequisite: Admission to Teacher Education Program, EDUC 3310, EDUC 3375.

EDUC 4383. Internship for Classroom Teaching. 3 Credit Hours (Lecture: 1 Hour, Lab: 9 Hours).
This internship includes supervised, field-based activities in public school classrooms. Major emphasis is placed on the development of instructional strategies and professional practices designed to improve teaching performance. Students are required to conduct a reflective analysis of their teaching performance. May be repeated for credit. Prerequisite: Admission to the Teacher Education Program.

EDUC 4391. Teacher Residency I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Supervised co-teaching in a public school for an entire semester. Tarleton Teacher Residents will be placed in a state-accredited public school all day under the guidance of an experienced and accomplished classroom teacher. Teacher Residents will demonstrate professional development and growth in the implementation of effective instruction, assessment, technology integration, and classroom management. Prerequisite: Admission into Teacher Residency.

EDUC 4690. Clinical Teaching. 6 Credit Hours (Lecture: 0 Hours, Lab: 40 Hours).
Supervised clinical teaching in the public schools at the appropriate level. Students are required to demonstrate proficiency in content, the application of best practices, and classroom management strategies. Prerequisites: Admission to Clinical Teaching and concurrent enrollment in EDUC 4335(or equivalent). Passing scores on required certification exams.

EDUC 4692. Teacher Residency II. 6 Credit Hours (Lecture: 6 Hours, Lab: 0 Hours).
Supervised co-teaching in a public school for an entire semester. Tarleton Teacher Residents will be placed in a state-accredited public school all day under the guidance of an experienced and accomplished classroom teacher. Teacher Residents will demonstrate professional development and growth in the implementation of effective instruction, assessment, technology integration, and classroom management. Prerequisite: Admission into Teacher Residency.

Reading Courses

READ 0303. Basic Reading. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of ways a student may enhance existing reading and writing skills; evaluate and examine new theories of learning in relation to individual needs; develop problem solving abilities and critical thinking; acquire individual capacities for understanding oneself in relation to college expectations. The class will use relevant, pertinent materials designed to enrich a student's background knowledge.

READ 3301. Introduction to Children's Literature. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A survey of literature for children grades EC – 8 focusing on the use of classic and contemporary texts to promote interest, motivation, and critical reading skills for self-selected reading. Credit will not be granted for READ 3301 and ENGL 3350. Prerequisites: ENGL 1301, 1302, and 3 hours of SOPH level ENGL.

READ 3311. Literacy for the Early Years. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is a field-based course that supports preservice teachers as they learn and apply the science of reading principles in authentic contexts with early childhood learners. The course surveys concepts, principles, and best practices related to the assessment and instruction of foundational literacy skills (oral language, phonological and phonemic awareness, print awareness, alphabetic knowledge, phonics, fluency, vocabulary, and comprehension) in the context of state learning standards. The course also includes an examination of explicit, research-based strategies, tools, and instructional practices related to foundational literacy skills to promote all learners' development of grade-level literacy skills. Prerequisite: ENGL 1301, 1302, and concurrent enrollment in READ 3321.

READ 3321. Early Childhood Literacy Field Implementation. 3 Credit Hours (Lecture: 1 Hour, Lab: 9 Hours).
This course is designed to give students field-based experiences in the early childhood classroom. Students will develop practical lessons and activities to be used in the literacy classroom and apply knowledge and skills about instructional strategies, materials, and best-practices in the early grades classroom. Prerequisite: Concurrent enrollment in EDUC 3320 or EDUC 3321.

READ 3351. Content Area Literacy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This course provides an understanding of factors which influence learning from content-area texts and teaches specific instructional strategies which promote comprehension, vocabulary development, effective study and inquiry strategies, test-taking skills, writing, and ways to modify text for learners including English Language Learners, Gifted and Talented, Special Education and other cultural groups. Attention is given to the principles of research-based reading and writing instruction for 4-8 and 7-12 pre-service teachers. Prerequisites: ENGL 1301 and ENGL 1302.

READ 3356. Content Area Literacy for Interdisciplinary Studies. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides an understanding of factors which influence learning from content-area texts. The course includes specific instructional strategies that promote comprehension, vocabulary development, effective study and test-taking skills, and ways to modify texts for learners including English Language Learners, Gifted and Talented, Special Education and other cultural groups. Attention is given to the principles of research-based reading instruction for EC-3 and EC-6 pre-service teachers. Prerequisites: ENGL 1301 and ENGL 1302.

READ 3384. Literacy for the Middle Years. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This course is a field-based course surveying the characteristics of the middle to upper-elementary learner and methods of assessment and instruction in all aspects of literacy including comprehension, vocabulary, and word identification in the context of state learning standards. The course also examines normal reading development, reading difficulties—including dyslexia—and strategies for assessing and addressing varied reading processes and the development of literacy in English language learners. Prerequisite: READ 3311, Acceptance in the Teacher Education Program.

READ 4086. Reading Problems. 1-3 Credit Hours (Lecture: 0 Hours, Lab: 1-3 Hours).
A course featuring independent research, reading, application and discussion under personal direction of instructor. Topics vary according to student need. Open to students of junior or senior classification who have been admitted to the Teacher Education Program and with approval of the instructor and department head.

READ 4309. Reading and Writing Across the Curriculum. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This course focuses on theory and instructional strategies for teaching and assess literacy learning with EC-6 and 4-8 learners in a school setting. It includes the writing process, genres of children's literature and writing genres, evaluation of children's literature, teaching with mini-lessons using children's literature as mentor texts to teach writing, stages of writing in relation to early literacy, state and national standards for writing, high stakes writing tests and writing to learn. Prerequisites: READ 3311 and acceptance into the Teacher Education Program.

READ 4310. Concepts of Literacy Classrooms. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An examination of literacy initiatives and concepts for grades EC – 8. Prerequisites: Admission to the Tarleton Teacher Education Program and concurrent enrollment in EDUC 4315 or EDUC 4330.

READ 4331. Assessment Field Implementation. 3 Credit Hours (Lecture: 1 Hour, Lab: 9 Hours).
This course is designed to give students field-based experiences in the use of assessment to analyze students' strengths and needs, evaluate teacher effectiveness, and guide instructional planning for individuals and groups. The focus of this course will include the application of technology-based and traditional assessment models to enhance students' literacy achievement, including ELLs and students with special needs. Prerequisite: READ 3321. Admission to the Teacher Education Program.

READ 4384. Literacy and Reading Problems Assessment for the Middle Years. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This course is a field-based course surveying the characteristics of the middle to upper elementary learner and methods of assessment and instruction in all aspects of literacy including comprehension, vocabulary, and word identification in the context of state learning standards. The course also includes an examination of normal reading development, reading difficulties, including dyslexia, and strategies for assessing/addressing reading differences including learner reading processes and development of literacy of English Language Learners. Prerequisite: READ 3311, Acceptance in the Teacher Education Program.

Special Education Courses

EDSP 2362. Special Education Rules and Regulations. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Laws and litigation that affect the education of students with disabilities are examined. Includes procedures pertinent to teachers providing special education services such as federal and state regulations, IEPs, and the development of basic instructional plans.

EDSP 3360. Assessment Principles in Special Education. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to provide an understanding of formal and informal assessment and evaluation procedures. In addition, it will present how to evaluate k-12 student competencies in order to make instructional decisions. A field-based experience is required. Prerequisite: EDUC 2301 or EDSP 3361.

EDSP 3361. Survey of Exceptional Learners. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The characteristics of exceptional learners and the educational programs for individuals with disabilities will be surveyed. Additional course content will include the legislation and court cases related to special education and the referral, diagnosis, and placement of exceptional learners. A field experience is required. Prerequisite: TASP/THEA requirement must be met.

EDSP 4086. Special Education Problems. 1-3 Credit Hours (Lecture: 0 Hours, Lab: 1-3 Hours).
A course featuring independent research, reading, application and discussion under personal direction of instructor. Topics vary according to student need. Open to students of junior or senior classification who have been admitted to the Teacher Education Program and with approval of the instructor and department head.

EDSP 4361. Teaching Strategies for Adolescent Students with Learning Disabilities. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to be a Survey of exceptional learners and the mandated educational programs for individuals with disabilities in middle and secondary schools. Additional course content will include instructional and communicative strategies that will facilitate appropriate and productive inclusion of middle and secondary age students with diagnosed and undiagnosed disabilities within general education classrooms and other school settings.. A field experience is required. Prerequisites: EDUC 3321 or EDUC 3320 and admission to Teacher Education.

EDSP 4362. Special Education Rules and Regulations for Teachers. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Laws and litigation that affect the education of students with disabilities are examined. Includes procedures pertinent to teachers providing special education services such as federal and state regulations, IEPs, and the development of basic instructional plans. Field experience required. Prerequisite: EDSP 3361, equivalent course, or approval of department head.

EDSP 4363. Teaching Learners with Learning Disabilities. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Learning disabilities are examined with emphasis on history, definition, causation and characteristics. Content includes teaching methods for language, academic, and social skills as well as effective inclusive practices. Strategies for successful collaboration with parents, guardians, paraprofessionals and general education teachers are studied. Field experience required. Prerequisite: EDUC 2301.

EDSP 4364. Teaching Learners with Developmental Disabilities. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Etiology and characteristics associated with deficits in development are studied. Effects of developmental disabilities in the areas of language acquisition and physical, social and emotional functioning are examined. Course content includes methods for teaching functional academic skills, communication skills and life management skills, working with parents, paraprofessionals and related service personnel, community based instruction and vocational planning. Field experience required. Prerequisite: EDUC 2301 or EDSP 3361.

EDSP 4365. Behavior Management for Exceptional Learners. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Information is provided on managing a classroom that includes students with disabilities. Topics include creating positive interpersonal relationships in the classroom, increasing student motivation and learning, minimizing disruptive behavior, behavioral management strategies, curriculum adaptations, crisis management and behavior management theories and strategies. Information will also be provided on the typical characteristics associated with emotional disabilities and identification procedures utilized. Field experience required. Prerequisite: EDUC 2301 or EDSP 3361.

EDSP 4367. Programming for Young Children with Disabilities. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Study of young children with disabilities aged birth to 6 with an emphasis on the techniques for implementing programs to meet the needs of the child and the family. Early intervention, medical intervention, and public school educational programming for infants, toddlers, and young children who are at risk will be addressed as well as parent involvement models to promote optimum parent-child and parent-professional relationships. Emphasis on recent research related to early childhood special education. Field experience required.

School of Behavioral Sciences

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Mission

The mission of the **School of Behavioral Sciences** is to provide an academically challenging education, innovative instruction, pioneering research, and impactful community engagement. We merge theory and practice to create high-impact programs which inspire students to build connected communities. We equip students with lasting, transferable skills that prepare them for comprehensive and meaningful careers.

Vision

The **School of Behavioral Sciences** aspires to advance the theory, practice, and real-world application of Counseling, Psychology, Child Development and Family Studies, and Sociology by offering programs that resonate with the needs of our communities. We are leaders in teaching, research, and scholarship as we serve our professions and communities by fostering collaborative innovation that addresses local and global challenges. We empower undergraduate and graduate students to elevate the public's understanding of human behavior.

Organizational Structure

The **School of Behavioral Sciences** consists of the **Division of Sociology,** the **Division of Child and Family Studies,** the **Department of Counseling,** and the **Department of Psychological Sciences**- which offers flexible degree plans at the undergraduate level as follows:

- BS in Psychology
- BS in Applied Sociology
- BS in Child and Family Studies
- BAAS in Child and Family Studies

Minor programs (this consists of 18-hours in any one of our programs below)

- Psychology
- Counseling
- Sociology
- Child and Family Studies

Department of Psychological Sciences

The Department of Psychological Sciences is committed to providing exciting and challenging ways to develop bright new leaders in the field of psychology. Our program is tailored to meet the needs of traditional undergraduates seeking a bachelor's degree in psychology at our Stephenville campus, as well as those students attending our satellite campuses in Fort Worth and Waco.

This Bachelor of Science degree at Tarleton State University is available through three program formats. Courses are offered face-to-face, hybrid (combination of face-to-face and online), and online. All psychology course requirements are available at all four campus locations. The program offers three concentrations, including **General Psychology, Pre-Clinical** and **Educational Psychology.**

The department offers student research opportunities with our faculty. Our undergraduates have joined faculty at professional meetings, including the Southwestern Psychological Association and the Association of Psychological Science.

For more information about Psychological Sciences, please reach out to the main office at 254-968-9090.

Department of Counseling

The Master of Science in Clinical Mental Health Counseling program is designed to accommodate working professionals, offering courses primarily in the evenings and on weekends. Students progress through the program in cohorts, completing their degrees over 8 to 11 semesters in Stephenville, Fort Worth, and Waco. The curriculum is accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP), ensuring rigorous academic and clinical training that meets the requirements for becoming a Licensed Professional Counselor (LPC) in Texas. With a focus on developing ethical and effective counseling professionals, the program emphasizes experiential learning, comprehensive theoretical knowledge, and a strong professional identity.

Graduates may work in a variety of fields including, but not limited to, private practice, community mental health agencies, hospitals or healthcare settings, schools and educational institutions, university counseling centers, or corporate programs.

For more information about Counseling, please reach out to the Interim Department Head, Dr. Ryan Foster at rdfoster@tarleton.edu

Division of Sociology

The Bachelor of Science in Applied Sociology at Tarleton State University is designed to prepare you to recognize and adapt to social change by equipping you with the lasting and transferable skills employers are seeking. Coursework focuses on developing skills like critical thinking, effective communication, data analysis, and intercultural competency and applying these skills in real-world contexts. With these skills, our graduates are working in a range of career fields and occupations. Applied Sociology is also excellent preparation for graduate school, too!

The Bachelor of Science degree at Tarleton State University equips students with the lasting skills employers seek. Our programs show students how to think critically, understand and conduct research, communicate effectively, and adapt to the ever-changing social world. The program offers three concentrations, including **General Sociology, Community Engagement** and **Sociology of Education**.

For more information about Sociology, please reach out to the Division Director, Dr. Derek Lehman at lehman@tarleton.edu

Division of Child and Family Studies

The Bachelor of Science degree in Child and Family Studies is designed to train professionals who are dedicated to the well-being and development of children and families. The child and family studies courses are offered completely online. This program offers a comprehensive curriculum with three distinct concentrations, allowing students to tailor their studies to align with their specific interests and career aspirations.

The **Child Life** concentration equips students with specialized skills in supporting children facing medical challenges and fostering resilience and emotional well-being in healthcare settings. The **Early Childhood Education** concentration provides a strong foundation in pedagogy and child development, preparing graduates for impactful roles in early learning environments. Finally, the **Family Life** concentration delves into the complexities of family dynamics, equipping students with the knowledge and skills needed to provide meaningful support and resources for families across diverse contexts.

For more information about Child and Family Studies, please reach out to the Division Director, Dr. Kristina Higgins at higgins@tarleton.edu

Department of Counseling

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The Department of Counseling offers an undergraduate minor in Counseling. The minor is designed to prepare students interested in enhancing their competence and awareness of interpersonal and intrapersonal relationships, skills, and attitudes. In addition, the minor in Counseling prepares students who are interested in pursuing graduate degrees in counseling/counselor education, counseling psychology, clinical psychology, and other mental health-related fields. The program requirements are listed below:

Minor in Counseling

Choose 18 hours of the following:		18
CNSL 2300	Introduction to the Counseling Profession	
CNSL 3300	Diversity and Cultural Awareness in the Counseling Profession	
CNSL 3301	Group Processes in Helping Relationships	
CNSL 3302	Survey of Career Development and Career Counseling	
CNSL 3303	Therapeutic Play	
CNSL 3305	Mental Health and Your Personal Journey	
CNSL 3307	Introduction to Disability Studies	
CNSL 4300	Essentials of Helping Relationships	
CNSL 4301	Introduction to Substance Abuse and Addiction Issues in Counseling	
Total Hours		**18**

Courses

CNSL 2300. Introduction to the Counseling Profession. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will provide an overview of various components of the counseling profession. Students will explore their personal motivation and interest in a counseling or human services profession as well as integrate professional concepts with personal style. The course will emphasize development of professional identity, therapeutic relationship, counseling theory, application, and ethics. The degree to which you perceive this experience as enhancing your personal and professional growth will largely be a function of your own goals and the initiative you assume in class.

CNSL 2301. The Basics of Counseling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Identify biological, social, emotional, and cognitive facets of human intimacy. Explain theory and research related to interpersonal relationships, romantic relationships, and familial relationships. Integrate theory and research of human intimacy into written assignments and presentations. Analyze information available in culture about human intimacy based on research. Prerequisite: CNSL 2300.

CNSL 3300. Diversity and Cultural Awareness in the Counseling Profession. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Didactic, experiential and applied learning opportunities prepare students to understand differences and commonalities within cultures. Students learn how cultural identity influences personal and world views, perceptions of experience, and styles of communication. With a focus on developing intrapersonal and interpersonal awareness, students cultivate attitudes and practice skills necessary for relating constructively with individuals in a variety of work settings.

CNSL 3301. Group Processes in Helping Relationships. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Group dynamics laboratory: Group functions and leadership styles as related to helping relationships.

CNSL 3302. Survey of Career Development and Career Counseling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is an integrated overview of the field of career counseling. Focus will be on current problems and developments in career choices, with emphasis on the role of personal self-exploration in evaluating approaches to career counseling and decision-making.

CNSL 3303. Therapeutic Play. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This didactic course focuses on how to be a therapeutic agent in a child's life. Students are introduced to the fundamental concepts and models of therapeutic play and building therapeutic relationships with children. Students are also introduced to basic child-centered play therapy principles and training requirements.

CNSL 3305. Mental Health and Your Personal Journey. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will take students through various aspects of mental health management and wellness development. Students will experience different elements of mental health wellness care, and will develop and implement a personal wellness plan. This course equips students with the essential knowledge to support their own wellness and promote wellness in various settings that are looking for mental health support such as schools, community agencies, and other setting across the lifespan.

CNSL 3307. Introduction to Disability Studies. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This is a foundational course designed to provide students with a broad overview of the disability experience. This course explores various aspects of the disability experience, including historical contexts, cultural significance, psychosocial implications, and the systemic challenges encountered by individuals living with one or more disabilities. Additionally, the course equips students with essential knowledge and skills to promote an enhanced awareness across various settings.

CNSL 3308. Introduction to Expressive Approaches to Counseling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to provide counseling undergraduate students an exploratory view of different forms of expressive counseling techniques. Students will be exposed to variety of counseling approaches including the use of music, visual arts, drama, play, animal assisted, sandtray, poetry and imagery. Students will gain knowledge of creative approaches to counseling by viewing how they are applied to counseling. They will also learn the rational and training needed to apply differing creative approaches to counseling. getting an opportunity to experience differing techniques. Discussion, role-play, lectures, small-group experiences, films, and demonstration are some possible methods that may be utilized.

CNSL 4300. Essentials of Helping Relationships. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Didactic and experiential training in interpersonal relationships; analysis and application of effective counseling activities.

CNSL 4301. Introduction to Substance Abuse and Addiction Issues in Counseling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will examine substance abuse and addiction disorders (e.g., gambling, sex, gaming, eating, tobacco) in multiple client populations, and their treatment. Students will learn how to conduct assessment for and diagnosis of substance abuse and addiction disorders, including co-occurring disorders; the effects of substances and addictions on the client and others; etiology; and best practices in counseling and treatment.

CNSL 4302. Case Management in Counseling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to help students develop a general overview of case management and how it is defined and practiced currently in mental health programs and settings.

CNSL 4386. Special Problems in Counseling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A course featuring independent reading, research, and discussion under personal direction of instructor, topics vary according to student need.

Department of Psychological Sciences

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The Bachelor of Science in Psychology is designed to expand your knowledge about the science of psychology and human behavior through rigorous coursework as well as opportunities for research and service activities. Psychology is a broad field that includes the study of how biology and the environment work together to influence human behavior. The field includes many subdisciplines, including developmental, social, cognitive, clinical, counseling, human factors engineering, evolutionary, forensic, health, educational, industrial/organizational, and quantitative psychology. Upon completion of this program you will have developed a deep knowledge base about human behavior as well as a strong set of skills in technical writing, critical thinking, and quantitative data analysis.

You will choose among concentrations in the following areas:

- **General** - This option is for individuals who are interested in exploring a variety of career options in the field of psychology.
- **Pre-Clinical** - This option is for individuals who are interested in careers in psychology which focus on mental health services.
- **Educational** -This option is for individuals who are interested in careers in psychology which focus on learning, cognition, and other aspects related to education.

The Bachelor of Science Degree in Psychology

General Education Requirements (p. 396)		42
Select 8 hours from the following [shared]:		
BIOL 1406	Biology for Science Majors	
BIOL 1407	Biology for Science Majors II	
BIOL 2401	Anatomy and Physiology I	
BIOL 2402	Anatomy & Physiology II	
CHEM 1407	Fundamentals of Chemistry	
CHEM 1311 & CHEM 1111	College Chemistry I (Lecture) and College Chemistry I (Laboratory)	
CHEM 1312 & CHEM 1112	College Chemistry II (Lecture) and College Chemistry II (Laboratory)	
GEOG 1451	Pre-GIS: GPS, VGI and Cartography	
GEOL 1403	Physical Geology	
GEOL 1404	Historical Geology	
GEOL 1408	Natural Disasters	
PHYS 1401	College Physics I	
PHYS 1402	College Physics II	
PHYS 1403	Stars and Galaxies	
PHYS 1410	Great Ideas of Physics	
PHYS 1411	Introductory Astronomy I	
PHYS 2425	University Physics I	
PHYS 2426	University Physics II	
Select one of the following [shared]:		
MATH 1314	College Algebra	

MATH 1332	Contemporary Mathematics I	
MATH 1324	Math for Business & Social Sciences I (Finite Mathematics)	
MATH 1342	Elementary Statistical Methods	
MATH 2412	Precalculus Math	
MATH 2413	Calculus I	
Select one of the following [shared]:		
ANTH 2351	Cultural Anthropology	
SOCI 1301	Introductory Sociology	
PSYC 2301	General Psychology	3
PSYC 2317	Statistical Methods in Psychology	3
PSYC 3301	Psychology of Learning	3
PSYC 3309 [WI (p. 396)]	Writing in Psychology	3
PSYC 3435 [WI (p. 396)]	Principles of Research for the Behavioral Sciences	4
PSYC 4320	History of Psychology	3
PSYC 4350 [WI (p. 396)]	Senior Capstone	3
PHIL 1301	Introduction to Philosophy	3
BCIS Elective		3
Electives		11
Advanced PSYC Elective		3
Advanced Electives		15
Total Hours		**99**

Educational Psychology

Choose 21 hours out of the following:		21
PSYC 2308	Child Psychology [1]	
or PSYC 2314	Life Span Growth & Development	
PSYC 2319	Social Psychology	
PSYC 3303	Educational Psychology	
PSYC 3305	Human Cognitive Processes	
PSYC 3320	Psycholinguistics [2]	
PSYC 3340	Child Psychopathology	
PSYC 4301	Psychological Tests and Measurements [2]	
PSYC 4390	Special Topics [3]	
Total Hours		**21**

General Psychology

Choose one of the following:		3
PSYC 2314	Life Span Growth & Development [1]	
PSYC 2308	Child Psychology	
PSYC 3307	The Human Lifespan	
PSYC 3340	Child Psychopathology	
Choose one of the following:		3
PSYC 3303	Educational Psychology	
PSYC 3305	Human Cognitive Processes	
PSYC 3311	Behavior Analysis and Behavior Management [2]	
PSYC 3320	Psycholinguistics [2]	
Choose two of the following courses. (NOTE: At least one MUST be an upper level course)		6
PSYC 2315	Psychology of Adjustment	
PSYC 2345	Biological Psychology	
PSYC 2320	Abnormal Psychology	
PSYC 3350	Personality	
PSYC 4301	Psychological Tests and Measurements [2]	
Choose two of the following:		6
PSYC 2319	Social Psychology	
PSYC 3360	Sport Psychology	
PSYC 4302	Adaptive Psychology	
PSYC 4310	Industrial/Organizational Psychology	
Choose one of the following:		3
PSYC 3332	Neuropsychopharmacology	
PSYC 4303	Animal Behavior	
PSYC 4312	Behavioral Neuroscience	
Total Hours		**21**

Pre-Clinical Psychology

Choose 21 hours out of the following:		21
PSYC 2315	Psychology of Adjustment	

or PSYC 2345	Biological Psychology
PSYC 2320	Abnormal Psychology
PSYC 3311	Behavior Analysis and Behavior Management [2]
PSYC 3332	Neuropsychopharmacology
PSYC 3340	Child Psychopathology
PSYC 3350	Personality
PSYC 4301	Psychological Tests and Measurements [2]
PSYC 4390	Special Topics [3]
Total Hours	**21**

Minor in Psychology

PSYC Courses	12
Advanced PSYC Courses	6
Total Hours	**18**

Professors

- Dr. Jonali Baruah
- Dr. Jamie Borchardt
- Dr. Kyle Eichas
- Dr. Tom Faulkenberry

Associate professors

- Dr. Trina Geye
- Dr. Stephanie Robertson
- Dr. Logan Yelderman

Assistant professors

- Dr. Han Hao
- Dr. Alyssa Jones
- Dr. Man'Dee Mason
- Dr. Amanda Stevens
- Dr. Chenmu (Julia) Xing

Instructors

- Carrie Baughn
- Lisa Mapes
- Doug Smith

Courses

PSYC 1000. TCC Dual Admit. 0 Credit Hours (Lecture: 0 Hours, Lab: 0 Hours).

PSYC 2301. General Psychology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An overview of psychology, the scientific study of human behavior and mental processes and the variables that influence these processes. Topics covered in the course include motivation, emotions, intelligence, sensory processes, perception, learning, thinking, mental health, and psychotherapy. All psychology majors must earn a C or better in the course.

PSYC 2308. Child Psychology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of children from infancy through adolescence with emphasis on the analysis of behavior based on experimental evidence and contemporary theory.

PSYC 2314. Life Span Growth & Development. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A lifespan study of the development of human beings from conception to death. The growth and developmental patterns of the eight age groups are studied with attention directed to experimental evidence, case studies, and contemporary theories. May not be counted as part of the professional education component for teacher certification.

PSYC 2315. Psychology of Adjustment. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of human behavioral and mental processes that permit us to adjust or to meet the demands of a changing physical or psychological environment with an emphasis upon effective personal-social adjustment. Topics covered include social influence, stress, psychological factors and physical health, health-enhancing behaviors, addictive behaviors, methods of coping, roles and differences, and interpersonal attraction.

PSYC 2317. Statistical Methods in Psychology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Study of statistical methods used in psychological research, assessment, and testing. Includes the study of measures of central tendency and variability, statistical inference (including analysis of variance), and correlation and regression as these apply to psychology. All psychology majors must earn a C or better in the course. Prerequisites: PSYC 2301 and either MATH 1314, MATH 1316, MATH 1332, MATH 1324, MATH 1325, MATH 1342, MATH 2412, or MATH 2413.

PSYC 2319. Social Psychology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introduction to the theories and topics of social psychology. This course emphasizes the effect of social variables upon the behavior of individuals. Topics covered include socialization, language and communication, prejudice, social attitudes, attitude change, aggression, prosocial behavior, and group behavior. Prerequisite(s): PSYC 2301 or approval of the department head. Prerequisite: PSYC 2301 or approval of the department head.

PSYC 2320. Abnormal Psychology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An overview of the history, causes, and treatments of deviant behavior. Psychological, social, and physiological factors as they relate to the development of abnormal behavior and its subsequent treatment. Prerequisite: PSYC 2301 or approval of the department head.

PSYC 2345. Biological Psychology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introductory course in the biological and neuroscientific basis of behavior with emphasis on how the brain influences behavior. The basic chemical, electrical, and functional components of the nervous system that influence behaviors, cognition, and emotion will be examined. Prerequisite: PSYC 2301.

PSYC 3301. Psychology of Learning. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An investigation into the major theoretical approaches, concepts and principles, and experimental methods of learning. All psychology majors must earn a C or better in the course. Prerequisite: PSYC 2301 - must pass this course with a C or better, or approval of the department head.

PSYC 3303. Educational Psychology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of the psychology of learning within educational settings. Topics include theories and research on human development, cognition, learning, and motivation, and their application to the processes of teaching and learning. Issues such as cultural differences, standardized testing, individual differences, exceptionalities, and the learning environment are also considered.

PSYC 3305. Human Cognitive Processes. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A survey of human cognition and information processing, including perception, attention, memory, reasoning, and problem solving. Also included are the experimental methods and current theories of human cognition. Prerequisite: PSYC 2301 or approval of the department head.

PSYC 3307. The Human Lifespan. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Surveys development from conception through adulthood with emphasis on social adaptation of individuals and roles in families, groups, and communities. Cognitive, social, personal and biological factors of the stages of development are included.

PSYC 3309. Writing in Psychology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
The study of advanced technical communication in psychology. Involves learning and using the current edition of the Publication Manual of the American Psychological Association for formal research reports, literature reviews, grant proposals, and professional articles. Also involves learning to write professional psychological reports. Psychology majors must pass the course with a C or better. Prerequisite: PSYC 2301 with a C or better.

PSYC 3311. Behavior Analysis and Behavior Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Examines the basic principles and methods of behavior analysis and behavior management techniques. Includes a systematic review of behavioral and cognitive-behavioral methodologies for dealing with human problems such as disruptive behavior, personal adjustment difficulties, behavioral deficits, phobias and fears, developmental disorders, stress and maladaptive behavior in a variety of settings. Prerequisite: PSYC 2301 or approval of the department head.

PSYC 3320. Psycholinguistics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The course emphasizes the study of language, understanding languages, producing language and speech, language development, and related topics such as reading, language and the brain, linguistic variation, and universals. Prerequisite: PSYC 2301 or approval of the department head.

PSYC 3332. Neuropsychopharmacology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the neuroscientific basis of the effects of drugs on behavior. Emphasis will be placed on major antipsychotic, antianxiety, and antidepressant drugs and their clinical use and side effects. Drug abuse such as alcohol, marijuana, and cocaine will also be reviewed. Prerequisite: PSYC 2301 AND 8 hours of lab science.

PSYC 3340. Child Psychopathology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will cover psychological disorders affecting children, the ways in which they differ in presentation from childhood to adulthood, and the developmental impact of childhood psychological disorders. The causes, nature, identification, and treatment of behavioral and emotional disorders in children will be addressed. Prerequisite: PSYC 2301.

PSYC 3350. Personality. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introduction to personality, which is the unique and relatively stable patterns of behavior, thoughts, and feelings that make human beings different. Various theoretical approaches - psychodynamic, cognitive, behavioral, humanistic, and existential - will be covered and will be related to personality and personality development. Prerequisite: PSYC 2301 or approval of department head.

PSYC 3360. Sport Psychology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will provide students with an overview of the theories and research related to sport and exercise behavior. Topics to be covered include the history of sport psychology, behavioral principles, anxiety, motivation, leadership, group dynamics, and personality. The course will also be designed to relate these principles to exercise and sport performance. Prerequisite: PSYC 2301 or approval of department head.

PSYC 3435. Principles of Research for the Behavioral Sciences. 4 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours). [WI (p. 396)]
The study of various research designs used in the behavioral sciences. Includes laboratory exercises to acquaint and give students hands-on experience with experimental procedures and basic and applied research. Experiences are also provided in developing a research proposal, obtaining approval and consent to conduct research, using statistical computer applications, and writing a research report. Ethical and legal issues in conducting research are also considered. All psychology majors must earn a C or better in the course. Prerequisites: PSYC 3309 with a C or better and PSYC 2317 with a C or better.

PSYC 4086. Problems in Psychology. 1-3 Credit Hours (Lecture: 0 Hours, Lab: 1-3 Hours).
Independent reading and research on various topics related to Psychology. Entry into the course will be arranged by the director of the Psychology program.

PSYC 4301. Psychological Tests and Measurements. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introduction to the fundamental concepts of psychological testing and measurement. Includes discussion of the basic theoretical concepts underlying psychological measurement, including psychological scaling, covariance/correlation, dimensionality, reliability, and validity. Also includes discussion of practical issues with test development, including test construction, item analysis, and scoring. Prerequisites: PSYC 2301 and PSYC 2317, or approval of the department head.

PSYC 4302. Adaptive Psychology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A consideration of how adaptation has influenced social, cognitive and developmental processes in humans. Comparisons between humans and other species, and between different human cultures will be included. Prerequisite: PSYC 2301 or approval of the department head.

PSYC 4303. Animal Behavior. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A survey of the major areas of animal behavior research from a psychological perspective. Research examining the development and display of behaviors will include subject samples ranging from insects to humans conducted in natural, quasi-experimental, and experimental studies. Prerequisite: PSYC 2301 AND 8 hours of lab science.

PSYC 4310. Industrial/Organizational Psychology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A survey of the basic theories and practices of Industrial/Organizational psychology including selection testing, job analysis, performance appraisal training, employment motivation, job satisfaction, leadership and group processes within organizations. Prerequisite: PSYC 2301 or approval of department head.

PSYC 4312. Behavioral Neuroscience. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Surveys the biological basis of behavior. Includes an in-depth examination of the physical structure of the human body and the role of chemical and electrical operations within it and how it influences psychological functioning. Emphasis will be placed on the developmental, cognitive, affective and behavioral effects of such operations. Recent research will also be reviewed. Prerequisite: PSYC 2301, 8 hours of lab science (preferably BIOL), or approval of the department head.

PSYC 4320. History of Psychology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Historical analysis of prescientific psychology including philosophical and physiological roots leading to the development of the early schools of psychological thought to current psychological theoretical positions. All psychology majors must earn a C or better in the course. Prerequisites: PSYC 2301 and PHIL 1301 or approval of department head.

PSYC 4350. Senior Capstone. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
A focus on the application, integration, and demonstration of knowledge gained throughout psychology major coursework. In this course, students will be expected to demonstrate the following: knowledge base in multiple areas of psychology, knowledge of methods of scientific inquiry and critical thinking, ethical and social responsibility, effective written and oral communication, and professional development. All psychology majors must earn a C or better in the course. Prerequisites: PSYC 3435 and 90 hours completed, or permission of the department head.

PSYC 4388. Undergraduate Research Experience. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will provide students the opportunity to engage in research with faculty. Students will have the opportunity to gain experience working in a lab setting, which may include engagement in design, collection, analyzing, interpreting, writing and presenting data. Students must be currently working in a lab and be invited by a faculty member to take this course. Prerequisite: PSYCH 2301.

PSYC 4390. Special Topics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Independent reading and research on various topics related to Psychology. Prerequisites: Senior standing.

Division of Child and Family Studies

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The Bachelor of Science degree in Child in Family Studies is designed for students who want to work with children and families outside of the public school setting. Our program is designed with three concentrations to provide students with a strong foundation of knowledge, leadership skills, and cultural competencies to work with children and families. This is a fully online program. All CHFS majors must earn a C or better in all CHFS and TECA courses, and a major GPA of 2.25 is required for graduation.

- **Early Childhood Education** - This concentration provides students with knowledge and experience in working with young children in a classroom setting. Students will have completed course for eligibility to obtain a director's licensure for licensed child care programs in Texas or an early intervention specialist certification.
- **Family Life** - Family life education focuses on educating parents and families, family resource management, and family policy, with the overall goal of strengthening family systems. Students can work in advocacy, adoption, foster care, or family life education. Students are eligible to apply for a certification in family life education through the National Council on Family Relations upon graduation.
- **Child Life** -This concentration prepares students work with children in hospital settings. Upon graduation, completion of an internship approved by the Association for Child Life Professionals, and successfully passing the ACLP child life certification exam, students are able to apply to become a certified child life specialist through the ACLP.

The Bachelor of Applied Arts and Science degree offers a flexible program that allows students to utilize their documented workforce training experiences toward obtaining a degree. Up to thirty-three hours of workforce credit can be applied towards the degree through workforce-based college credit hours and/or documented work training hours.

The Bachelor of Applied Arts & Sciences in Child Development and Family Studies

General Education Requirements (p. 396)		42
CHFS 3300	Child Development: Theory, Research, and Practice	3
CHFS 3353	Child and Youth Guidance	3
CHFS 4309	Parenting	3
CHFS 4350 [WI (p. 396)]	Policies and Ethical Standards	3
CHFS 4356 [WI (p. 396)]	Research Methods in Human Sciences	3
CHFS 4360	Preprofessional Development	3
CHFS 4085	Internship Seminar	3
CHFS 4320	Early Intervention Services	3
Credit for Prior Learning Component:		
Credit for Prior Learning		12-33
Electives		0-21
Total Hours		**99**

Child Life Specialist

CHFS 1304	Infant and Toddler Development	3
CHFS 4355	Grief, Loss & Bereavement	3
CHFS 4345	Child Life	3
CHFS 4340	Play Theory and Research	3
KINE 3380	Adapted Physical Activity	3
PSYC 2314	Life Span Growth & Development	3
TECA 1318	Wellness of the Young Child	3
Total Hours		**21**

Early Childhood Education

CHFS 3305	Management of a Licensed Child Care Program	3
CHFS 3306	Application of Management of a Licensed Child Care Program	3
CHFS 3315	Concept Development in Early Childhood	3
CHFS 3344	Creative Arts and Literature for Children	3
CHFS 4317	Environments in Early Childhood	3
KINE 3380	Adapted Physical Activity	3

SOCW 4311	Child Welfare	3
Total Hours		**21**

Family Life Educator

TECA 1303	Families, School, & Community	3
CHFS 3310	Methodology of Family Life Education	3
CHFS 3333	Family Financial Management	3
CHFS 3316	Human Intimacy	3
PSYC 2314	Life Span Growth & Development	3
COMM 3304	Interpersonal Communication	3
SOCW 3303	Cross Cultural Social Work Practice	3
Total Hours		**21**

The Bachelor of Science Degree in Child Development and Family Studies

General Education Requirements (p. 396)		42
CHFS 1304	Infant and Toddler Development	3
CHFS 3300	Child Development: Theory, Research, and Practice	3
CHFS 3353	Child and Youth Guidance	3
CHFS 4085	Internship Seminar	3
CHFS 4309	Parenting	3
CHFS 4350 [WI (p. 396)]	Policies and Ethical Standards	3
CHFS 4356 [WI (p. 396)]	Research Methods in Human Sciences	3
CHFS 4360	Preprofessional Development	3
EDUC 2301	Introduction to Special Populations	3
PSYC 2308	Child Psychology	3
TECA 1311	Educating Young Children	3
Total Hours		**75**

Child Life Education

SOCI 1301 [shared]	Introductory Sociology	
TECA 1318	Wellness of the Young Child	3
CHFS 3322	Fragile Family Systems	3
CHFS 4320	Early Intervention Services	3
CHFS 4340	Play Theory and Research	3
CHFS 4345	Child Life	3
CHFS 4355	Grief, Loss & Bereavement	3
HECO 1322	Nutrition and Diet Therapy	3
KINE 3380	Adapted Physical Activity	3
PSYC 2301	General Psychology	3
PSYC 2314	Life Span Growth & Development	3
PSYC 2315	Psychology of Adjustment	3
PSYC 3311	Behavior Analysis and Behavior Management	3
SOCW 4311	Child Welfare	3
SOCI 4314	Medical and Health Care Policy	3
General Elective		3
Total Hours		**45**

Early Childhood Education

Select one of the following:		
COMM 1311 [shared]	Introduction to Speech Communication	
COMM 1315 [shared]	Public Speaking	
COMM 2302 [shared]	Business and Professional Speaking	
TECA 1303	Families, School, & Community	3
TECA 1318	Wellness of the Young Child	3
CHFS 3305	Management of a Licensed Child Care Program	3
CHFS 3306	Application of Management of a Licensed Child Care Program	3
CHFS 3315	Concept Development in Early Childhood	3
CHFS 3322	Fragile Family Systems	3
CHFS 3344	Creative Arts and Literature for Children	3
CHFS 4317	Environments in Early Childhood	3
CHFS 4320	Early Intervention Services	3
COMM 3304	Interpersonal Communication	3
KINE 3380	Adapted Physical Activity	3
PSYC 3303	Educational Psychology	3
SOCW 2361	Introduction to Social Work	3

SOCW 3303	Cross Cultural Social Work Practice	3
Elective		3
Total Hours		**45**

Family Life Education

Select one of the following:		
COMM 1311 [shared]	Introduction to Speech Communication	
COMM 1315 [shared]	Public Speaking	
COMM 2302 [shared]	Business and Professional Speaking	
TECA 1303	Families, School, & Community	3
CHFS 3310	Methodology of Family Life Education	3
CHFS 3316	Human Intimacy	3
CHFS 3322	Fragile Family Systems	3
CHFS 3333	Family Financial Management	3
CHFS 4320	Early Intervention Services	3
COMM 3304	Interpersonal Communication	3
HECO 1322	Nutrition and Diet Therapy	3
PSYC 2301	General Psychology	3
PSYC 2314	Life Span Growth & Development	3
PSYC 2315	Psychology of Adjustment	3
PSYC 3303	Educational Psychology	3
PSYC 3307	The Human Lifespan	3
SOCI 1301 [shared]	Introductory Sociology	
SOCW 3303	Cross Cultural Social Work Practice	3
SOCW 4311	Child Welfare	3
Total Hours		**45**

Minor in Child Development and Family Studies

CHFS 3300	Child Development: Theory, Research, and Practice	3
Select 5 of the following:		15
CHFS 1304	Infant and Toddler Development	
CHFS 3305	Management of a Licensed Child Care Program	
CHFS 3306	Application of Management of a Licensed Child Care Program	
CHFS 3310	Methodology of Family Life Education	
CHFS 3315	Concept Development in Early Childhood	
CHFS 3316	Human Intimacy	
CHFS 3322	Fragile Family Systems	
CHFS 3333	Family Financial Management	
CHFS 3344 [WI (p. 396)]	Creative Arts and Literature for Children	
CHFS 3353	Child and Youth Guidance	
CHFS 4309	Parenting	
CHFS 4317	Environments in Early Childhood	
CHFS 4320	Early Intervention Services	
CHFS 4340	Play Theory and Research	
CHFS 4345	Child Life	
CHFS 4350 [WI (p. 396)]	Policies and Ethical Standards	
CHFS 4355	Grief, Loss & Bereavement	
CHFS 4356 [WI (p. 396)]	Research Methods in Human Sciences	
CHFS 4360	Preprofessional Development	
Total Hours		**18**

Certificate in Child Life

TECA 1318	Wellness of the Young Child	3
CHFS 1304	Infant and Toddler Development	3
CHFS 3300	Child Development: Theory, Research, and Practice	3
CHFS 4309	Parenting	3
CHFS 4320	Early Intervention Services	3
CHFS 4340	Play Theory and Research	3
CHFS 4345	Child Life	3
CHFS 4350 [WI (p. 396)]	Policies and Ethical Standards	3
CHFS 4355	Grief, Loss & Bereavement	3
CHFS 4356 [WI (p. 396)]	Research Methods in Human Sciences	3
Total Hours		**30**

Professor

- Deborah Banker

Associate professors

- Kristina Higgins
- Lisa Taylor Cook

Instructor

- Jasmine Frett
- Madison Simpson

Visiting Instructor

- Olivia Gibson

Child Development and Family Studies Courses

CHFS 1304. Infant and Toddler Development. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Emphasis is on the child from conception through younger years (up to 35 months) with a study of growth and development. Directed observation in approved settings with children ages 0-35 months is required.

CHFS 3300. Child Development: Theory, Research, and Practice. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A survey of the child's physical, mental, social, and emotional development from birth to 18 years old. Emphasis is placed on the three year old to adolescent child and those factors which influence his/her growth. All CHFS majors must earn a grade of C or better in the course. This course is a requirement for admission to the Tarleton Teacher Education Program with a C or better. Field experience hours are required for this course. Prerequisite: Sophomore classification.

CHFS 3305. Management of a Licensed Child Care Program. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Basic principles of the management of licensed child care programs are studied. Topics covered include planning, operating, supervising and evaluation of practices within early learning programs based on child care licensing minimum standard regulations and expectations. Field experience hours required in a licensed child care program.

CHFS 3306. Application of Management of a Licensed Child Care Program. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Principles of management of licensed child care programs are analyzed and applied based on child care licensing minimum standard regulations and expectations. Topics covered include personnel management, training requirements, professionalism, advocacy, legal and ethical issues within the early learning field. Field experience hours required in a licensed child care program.

CHFS 3310. Methodology of Family Life Education. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An understanding of the philosophies and principles of family life education, including knowledge of the family life certification process and content areas. This course will include a survey and critique of various existing family life education programs as well as the development, implementation, and evaluation of new evidence-based programs.

CHFS 3315. Concept Development in Early Childhood. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An exploration of theory and practice in teaching science, mathematics, social studies, and technology to young children. An emphasis is placed on developmentally appropriate practices that facilitate skill development. Field experience required in a classroom setting with children ages 0-9 years. Prerequisite: Prerequisite of or concurrent enrollment in CHFS 3300.

CHFS 3316. Human Intimacy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A functional approach to the understanding of the interpersonal dynamics and choices in primary and secondary relationships such as those with friends, dating partners, and potential mates. The study will include a brief historical and cross-cultural perspective with emphasis on the roots of modern American customs and the rituals of dating and mate selection. Current issues in human intimacy are included. A major component of the class is a study of interpersonal communication.

CHFS 3322. Fragile Family Systems. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The course is designed to examine the issues that surround families that could be considered fragile. An in-depth look will be presented as to how these situations impact children and families along with the theories of trauma to these types of families.

CHFS 3333. Family Financial Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course explores financial planning, financial protection, and financial milestones throughout the family life cycle. Special emphasis is given to the use of family finances in achieving goals.

CHFS 3344. Creative Arts and Literature for Children. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An exploration of theory, practice, and materials for teaching young children music, movement, visual arts, and literacy. An emphasis will be placed on developmentally appropriate practice including process-focused activities and skill development. Field experience in approved settings is required. Prerequisite: Prerequisite of or concurrent enrollment in CHFS 3300.

CHFS 3353. Child and Youth Guidance. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines positive guidance strategies for children from birth to eight years. Students will explore theoretical foundations related to child development and the implementation of various models to foster self-control, organize environments and curriculum for pro-social skills, and methods for addressing persistent and challenging behaviors. The course will also explore a wide variety of issues in relation to parenting, child-rearing practices, and child-family relations. Field experience in approved settings with children ages 0-12 is required. Prerequisite: Prerequisite of or concurrent enrollment in CHFS 3300.

CHFS 4085. Internship Seminar. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 0 Hours).
This internship includes supervised, field-based activities working with children and families. Students are required to complete a reflective analysis of their internship activities. 225 hours of direct practice in approved settings is required. Prerequisite: CHFS 3300 and an additional 12 hours of upper level CHFS coursework.

CHFS 4088. CHFS Honors Thesis. 6 Credit Hours (Lecture: 0-6 Hours, Lab: 0 Hours).
Supervised research and writing of an Honors thesis directed by a faculty member in a chosen area of specialization. An Honors thesis is a substantive piece of scholarship or creative work involving primary and/or secondary research, which serves to demonstrate mastery over the discourse, methods, and content of at least one academic, creative, or professional field. This course will be taken in the semester in which the thesis is completed and defended. Prerequisite: Approval of Dean of Honors College.

CHFS 4309. Parenting. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A contemporary approach to basic principles and skills needed for effective parenting. Study will include assessment of parenting programs and techniques. Emphasis is placed on creating nurturing home environments through the life cycle.

CHFS 4317. Environments in Early Childhood. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will offer a broad perspective and exploration of early childhood environments, emphasizing the relationships between the children's learning, adult engagement, and the environment. Students will expand their current views and ideas about children's education by investigating and discussing indoor/outdoor spaces, encountering when and how the environment acts as a teacher, building a curriculum, creating a sense of belonging, and discovering how to pay close attention to details in the environment. Topics will also include including children with exceptional needs and working with children in various environments including medical settings. Field experience is required with children ages 3-5 (pre-kindergarten). Prerequisite: pre-requisite or concurrent enrollment of CHFS 3300.

CHFS 4320. Early Intervention Services. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course covers the systems of services available in various states around the country that assists infants and toddlers with developmental delays or disabilities. Students will learn what constitutes a developmental delay, developmental milestones, screening and/or evaluations, Individual Family Service Plans, and the personnel and their roles involved in early intervention services.

CHFS 4340. Play Theory and Research. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Exploration of historical and contemporary therapeutic play theory and research from infancy through young adulthood. Play environments, learning objectives for various age groups, and play therapy are covered.

CHFS 4345. Child Life. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A review of the historical and theoretical perspectives on the development of the child life field and information on fundamental skills required to help children and families cope with the stress of the health care experience. Child Life programs strive to promote optimum development of children, adolescents and families, to maintain normal living patterns, and to minimize psychological trauma. Child life specialists, as members of the health care team, maintain, enhance, and maximize normal growth and development through play, education, advocacy and therapeutic interventions. At the completion of this course, students will be able to promote the essential child life goals of minimizing stress and anxiety, promote coping, and promote normal development.

CHFS 4350. Policies and Ethical Standards. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
A study of moral, ethical, and legal issues faced by professionals working with children and families. Students will learn to assess each situation independently and evaluate alternative approaches to promoting optimal policies and procedures. Information on the legal aspects of early childhood intervention, working with young children with exceptional needs, and the ethical treatment of families in poverty will be included. Prerequisite: CHFS 3300, Junior Classification.

CHFS 4355. Grief, Loss & Bereavement. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is an introduction to concepts surrounding the nature of loss, suffering, grief, and issues of death and dying. Historical, current, cultural, spiritual, and religious perspectives will be examined with attention to ethical and moral issues. Theoretical foundations will be explored as related to death and dying, as well as other types of loss to include divorce, adoption, foster care, palliative care, transitions and symbolic loss and how it impacts children and families.

CHFS 4356. Research Methods in Human Sciences. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
Current research issues and the importance of research in Human Sciences will be discussed. Main tasks include review of literature, introduction to the scientific method of inquiry, analysis of results, and completion of a research paper. All CHFS majors must earn a grade of C or better in the course. Prerequisite: CHFS 3300.

CHFS 4360. Preprofessional Development. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Basic information for professional growth, including information relevant to human sciences careers, business interactions, global business-related social and cultural differences, professional correspondence, development of professional marketing tools such as interview skills, preparation of cover letters and resumes. All CHFS majors must earn a grade of C or better in the course.

Texas Early Childhood Education Courses

TECA 1303. Families, School, & Community. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the child, family, community, and schools, including parent education and involvement, family and community lifestyles, child abuse, and current family life issues. Course content must be aligned as applicable with State Board for Educator Certification Pedagogy and Professional Responsibilities standards and coincide with the National Association for the Education of Young Children position statement related to developmentally appropriate practices for children from birth through age eight. Requires students to participate in field experiences with children from infancy through age 12 in a variety of settings with varied populations. The course includes a minimum of 16 hours of field experiences.

TECA 1311. Educating Young Children. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introduction to the education of the young child, including developmentally appropriate practices and programs, theoretical and historical perspectives, ethical and professional responsibilities, and current issues. Course content must be aligned as applicable with State Board for Educator Certification Pedagogy and Professional Responsibilities standards and coincide with the National Association for the Education of Young Children position statement related to developmentally appropriate practices for children from birth through age eight. Requires students to participate in field experiences with children from infancy through age 12 in a variety of settings with varied and diverse populations; and the course includes a minimum of 16 hours of field experiences.

TECA 1318. Wellness of the Young Child. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the factors that impact the well-being of the young child including healthy behavior, food, nutrition, fitness, and safety practices. Focuses on local and national standards and legal implications of relevant policies and regulations. Course content must be aligned as applicable with State Board for Educator Certification Pedagogy and Professional Responsibilities standards and coincide with the National Association for the Education of Young Children position statement related to developmentally appropriate practices for children from birth to age eight. Requires students to participate in field experiences with children from infancy through age 12 in a variety of settings with varied populations. Course includes a minimum of 16 hours of field experiences.

TECA 1354. Child Growth and Development. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
(TCCNS = TECA 1354) A study of the physical, emotional, social, language, and cognitive factors impacting growth and development of children through adolescence.

Division of Sociology

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The Bachelor of Science Degree in Applied Sociology provides students with the opportunity to become experts in understanding society and the interactions of individuals through a variety of courses taught by exceptional faculty. Students that major in this program will receive a well-rounded education, learn the basics

of research, communicate effectively verbally and in writing, and will be qualified candidates for careers in a range of fields like business, government, non-profit organizations, and more.

You will choose between concentrations in the following areas:

General Sociology - The General Sociology concentration at Tarleton prepares students to understand and adapt to the changing social world by developing the lasting and transferable skills employers are seeking. Coursework focuses on developing skills like critical thinking, effective communication, and data analysis and applying these skills in real-world contexts.

Community Engagement - The Community Engagement concentration in Sociology is designed to equip students for careers in advocacy work, human services, policy analysis, ministry, and more. Coursework includes an internship to earn hands-on experience before graduation.

Sociology of Education - The Sociology of Education concentration is designed for students who already have significant credit hours in areas like Education, Special Education, Early Childhood Education, and Reading, and plan to pursue careers in education or related fields. Coursework emphasizes the sociological understanding of education and preparing students to achieve their career goals.

Bachelor of Science Degree in Applied Sociology Program Requirements

General Education Requirements (p. 396) [1, 2]		42
SOCI 1301 [shared]	Introductory Sociology	
SOCI 1306	Social Problems	3
SOCI 2301	Marriage & the Family	3
SOCI 3330	Social Science Statistics	3
SOCI 4302 [WI (p. 396)]	Methods of Social Research	3
SOCI 4303 [WI (p. 396)]	Sociological Theory	3
SOCI 4399	Sociology Internship/Capstone	3
Total Hours		**60**

Community Engagement

SOCI 3308	Deviant Behavior	3
SOCI 3320	Rich and Poor In America	3
SOCI 3368	Social Movements	3
SOCI 4304	Sociology of Religion	3
SOCI 4305	Social Psychology	3
SOCI Electives (6 must be advanced)		9
General Electives		18
Minor (6 hours must be advanced)		18
Total Hours		**60**

General Sociology

SOCI Electives (21 hours must be advanced)	24
Electives	18
Minor (6 hour must be advanced)	18
Total Hours	**60**

Sociology of Education

Advanced SOCI Elective	3
CHFS, PSYC, EDUC, READ, TECA, or EDSP Electives (24 hours must be advanced)	36
Electives	21
Total Hours	**60**

Minor in Sociology

SOCI Courses	12
Advanced SOCI Courses	6
Total Hours	**18**

Professors

- Atsuko Kawakami
- Jason LaTouche

Associate professor

- Derek Lehman

Assistant professor

- Amirhossein Teimouri

Instructor

- Michael Ohsfeldt

Anthropology Courses

ANTH 2101. Physical Anthropology. 1 Credit Hour (Lecture: 0 Hours, Lab: 1 Hour).

ANTH 2301. Physical Anthropology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

ANTH 2302. Introduction to Archeology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A survey of human prehistory and the origins of civilization. Topics covered include archeological theory and methodology, the evolution of humans, the origins of culture, development of agriculture, and the early history of world civilizations. Theory reinforced by field experience.

ANTH 2351. Cultural Anthropology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A comparative study of culture, cultural patterns, and sociocultural change with the emphasis on preliterate societies.

ANTH 2401. Physical Anthropology. 4 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).

Sociology Courses

SOCI 1301. Introductory Sociology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A general introduction to the concepts and elementary methods used in the study of society. Special attention is given to social organization, social stratification, social institutions, formal organizations, small groups, and social change.

SOCI 1306. Social Problems. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Application of sociological principles and theoretical perspectives to major social problems in contemporary society such as inequality, crime and violence, substance abuse, environmental issues, deviance, or family problems.

SOCI 2301. Marriage & the Family. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Sociological and theoretical analysis of the structures and functions of the family, the varied cultural patterns of the American family, and the relationships that exist among the individuals within the family, as well as the relationships that exist between the family and other institutions in society.

SOCI 3301. Sociology of the Family. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The family is one of the most important social institutions and in many ways society is fundamentally organized around the family. Yet, despite persistent social significance, family forms have changed over time and vary from place to place leading to remarkable variety in how families are defined and organized. Topics covered include family formation and dissolution, childrearing, and family conflicts and violence.

SOCI 3304. Medical Sociology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course explores how the sociology of health and illness are affected by social structure and cultural factors, including how these influence health and illness and people's perceptions of the same. Additionally, this course explores the concrete organizations that make up medical systems and how that system reflects the interests of doctors, insurance companies, pharmaceutical industries, hospitals, researchers, the government, and the consumer. Prerequisite: SOCI 1301 or approval of department head.

SOCI 3305. Criminology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Theories of criminology and significant research on causes, extent, cost and ecology of crime; police, criminal, and juvenile courts; and prisons and reformatories. Course also focuses on prevention and rehabilitation. Credit for both CRIJ 3305 and SOCI 3305 will not be awarded. Prerequisite: SOCI 1301 or approval of instructor.

SOCI 3306. Urban Sociology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Urban Sociology presents a detailed analysis of “the city.” In this course, students will learn about varying factors associated with urbanization, while examining local neighborhood issues. Topics include the history of urbanization; ethnography and other methods for studying urban social phenomena; theories about how cities are socially and spatially organized, how social and spatial organization are related; how urban living affects social interaction. Special emphasis will be placed on New Urbanism, Food Deserts, the Urban Health Penalty, and Environment (In)Justice issues. The effects of suburbanization will also be investigated.

SOCI 3307. Rural Sociology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Adaptations of families to rural environments, farming, and other occupations; organizations, agencies, and institutions serving rural people; problems in delivering services to the country; and rural development and change.

SOCI 3308. Deviant Behavior. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An examination of the factors and conditions leading to behaviors that violate and deviate from fundamental social values. The relationship of personal and social maladjustment is addressed in relation to the various theories of deviant behavior.

SOCI 3310. Sociology of Aging. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of the reciprocal relationship between society and those considered aged by society, utilizing concepts and theoretical frameworks applicable to that population group. The course also examines the social forces that impinge on the aging process, including socially constructed images of the aged, and economic status. Credit for both SOCW 3310 and SOCI 3310 will not be awarded. Prerequisite: SOCI 1301.

SOCI 3312. Environmental Sociology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Examines relationships and interactions between society and the environment. Also examines how the natural world and its degradation influence the way societies are organized by studying human communities as part of natural ecosystems.

SOCI 3315. Sociology of Sport and Leisure. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines the mechanisms through which sport and leisure institutions and practices are created, maintained, and transformed. Particular attention is paid to the relationship between sport and leisure institutions and other social systems such as the family, religion, politics, and economics. Topics considered include violence, discrimination, power, globalization, and the role of the media.

SOCI 3320. Social Stratification and Inequality. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of social inequality in human society, with emphasis on the social class structure of the United States, its origins, development, and consequences for the society and the individual.

SOCI 3330. Social Science Statistics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Surveys the application of elementary forms of statistical processes, including central tendency, variation, the normal curve and Z scores, analysis of variance, regression analysis, and correlations, to social science data. The application of statistics will be made to the following areas: social work, sociology, criminal justice, political science, and gerontology. Statistical analysis software will be utilized for data analysis.

SOCI 3338. Sociology of Superheroes. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines the ways that the idea of the superhero functions as a cultural force within society. It examines the reciprocal influence between the idea of the superhero and ideas of morality, authority, power, nationalism, community and other social-cultural forces.

SOCI 3350. Sociology of Cults. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Are cults exploitative and dangerous or persecuted religious outsiders? In this course, we will consider both perspectives and the social consequences of each by examining several definitions and characteristics of cults. We will study cult members and their reasons for joining along with the attributes of cult leaders. And we will undertake several case studies for in-depth explorations of cults from their beginnings to their (sometimes violent) ends.

SOCI 3368. Social Movements. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines the major theoretical ideas about how social movements are created, organized, and maintained. Particular attention will be paid towards analyzing the strategies, techniques, and tactics that have been employed by social movements and the ways in which opponents have attempted to nullify these practices.

SOCI 4085. Sociology Seminar. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 0 Hours).
Independent reading, research, discussion, and paper writing under personal direction of instructor. May be taken more than once for credit if topics vary. Prerequisite: May be taken more than once for credit if topics vary.

SOCI 4086. Problems in Sociology. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 1-6 Hours).
Independent reading, research and discussion. Entry into this course will be arranged with the sociology counselor.

SOCI 4088. Sociology Honors Thesis. 6 Credit Hours (Lecture: 0-6 Hours, Lab: 0 Hours).
Supervised research and writing of an Honors thesis directed by a faculty member in a chosen area of specialization. An Honors thesis is a substantive piece of scholarship or creative work involving primary and/or secondary research, which serves to demonstrate mastery over the discourse, methods, and content in sociology. This course will be taken in the semester in which the thesis is completed and defended. All thesis projects must be approved by the Honors College. Enrollment in this course requires faculty agreement to direct the project. Prerequisite: Approval of Dean of Honors College.

SOCI 4301. Sociology of Conspiracy Theories. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines the ways that groups form conspiratorial meaning systems. The course discusses how social, cultural, and economic forces have served to shape conspiratorial thinking in the past and how these forces are working to shape these relations today and the larger social-cultural impact of such conspiratorial thinking.

SOCI 4302. Methods of Social Research. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
Principles and methods of social research, including research design, methods of observation, questionnaires, interviews, and other sources of social data; qualitative and quantitative techniques of inference; analysis and research report writing. Limited research studies and projects will be undertaken by the students. Prerequisite: Junior classification, SOCI 1301, or approval of department head.

SOCI 4303. Sociological Theory. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This course examines the major schools of sociological thought, including perspectives from both classic and contemporary sociological theory. Prerequisite: Junior classification, SOCI 1301 or approval of department head.

SOCI 4304. Sociology of Religion. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course introduces students to the sociology of religion by examining theoretical perspectives, methodological challenges, and research in the subfield. Topics covered include religious beliefs and practices, American and global religious demographics, and the social, political, and economic consequences of religion.

SOCI 4305. Social Psychology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Social psychology is an interdisciplinary field centered on the systematic study of the nature, causes, and effects of human social behavior. This course is generally oriented towards the contributions of sociology to understanding the influence of individuals on each other and the relationships between individuals and groups. Topics covered include social psychological theory and key concepts in the subfield like socialization, social identities, attitude formation, communication, deviance, group dynamics, and collective action.

SOCI 4306. Water Policy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course offers an interdisciplinary exploration on “water policies" -- that is, the political dimensions of human manipulation of water, wetlands and watersheds. While the substantive focus is water, the course is design to provide a broader introduction to social-scientific theorizing about human-environment relations. A central objective of the course will be examining Texas environmental laws regarding water policy; while employing a range of geographically different case studies that examine major topics on water politics, including: large-scale hydro-development and grassroots resistance thereto as a subset of the contentious history of international development policy more broadly the governance of common-pool resources; the emergence of participatory and community-based water management policies; the "neoliberalization" of water resources through privatization, marketization and commodification; and conflict and cooperation in the governance of trans-boundary waters. Our examination is guided analytically themes central to the environmental social sciences, including: power, institutions, political economy, and the social embeddedness of science. Credit for SOCI 4306, WSES 4306, and SOCI 5306 will not be awarded.

SOCI 4313. Globalization. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course focuses on social processes and social problems as they are contained in the highly interdependent world system. Social change and development stresses historical, comparative, and critical perspectives, and addresses the problem of how and why societies and cultures around the world change.

SOCI 4314. Medical and Health Care Policy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Intensive study of current trends and issues related to professional health care practice, service delivery, and populations at risk. Provides an opportunity to explore the many ways in which issues related to health, illness, and disability policies including cultural factors impact clients, families, and society. Appropriate ways for health care professionals to understand and intervene in these areas will be discussed.

SOCI 4321. Death and Dying. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The ramifications of death, including the experiences and rights of the dying and the significance to those who mourn. Using major sociology theories, focuses on the meaning to society of the reality and symbolism of death. Credit for both SOCW 4321 and SOCI 4321 will not be awarded. Prerequisite: SOCI 1301.

SOCI 4340. Sociology of Contemporary Japan. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will explore the potential of Japan's soft power, including its traditional culture, science, and technology. This course will examine the characteristics of Japanese organizations and management styles in comparison with other Asian and Western-styles on issues of welfare policy, family, and aging. This course also seeks to propose what contributions Japan should make based on Japan's experiences in environmental issues, including modernization, urbanization, and current natural and technological deserters Japan has experienced.

SOCI 4399. Sociology Internship/Capstone. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Serving as a required, capstone course, students assist the faculty supervisor with their placements in a social science related agency. The field experience, coupled with textbook materials and weekly class seminars, provides students the opportunity to integrate sociological theory with practical experience. At the agency, students will work 120 hours, acquiring professional skills while earning college credit. Students will also keep a journal of internship experiences and write a final paper that applies sociology to the field experience. Prerequisites: major in Applied Sociology.

College of Engineering

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The Mayfield College of Engineering was established in June 2022. The mission of the Mayfield College of Engineering is to facilitate in students the development of advanced engineering knowledge and skills through rigorous hands-on academic programs supported by industry partnerships. To achieve the mission, faculty and staff perform groundbreaking research, as well as, deliver advanced education in a new building containing state-of-the-art teaching laboratories, classrooms, and makerspaces. Faculty members collaborate closely with industry to provide students with career opportunities and bring real-world engineering activities to the classroom. The academic environment in the college encourages students to discover, design, and implement innovative solutions to real-world challenges and instills in them a sense of civility, ethics, community engagement, and entrepreneurship. The main goal of the Mayfield College of Engineering is student success! The College has three departments, Computer Science and Electrical Engineering department, Engineering Technology department, and Mechanical, Environmental, and Civil Engineering department. More than 30 faculty members teach 17 academic programs in the college, 12 undergraduate and 5 graduate programs. Our programs benefit from the advice of industry through Industry Advisory Boards.

Mayfield College of Engineering Math Placement Policy

Students admitted to the Mayfield College of Engineering require a strong foundation in Math due to the prerequisites of the curriculum. Therefore, progress and academic performance are heavily impacted by engineering students' math preparation and placement.

ALEKS-PPL allows us to place students accurately at the right math level based on students' math knowledge and skills. However, this is not the main capability this student success tool provides students. The main contribution of ALEKS to students is offering the opportunity to enhance their math proficiency by creating online learning modules customized to each student based on the student's math proficiency. Therefore, to increase our engineering students' math preparation and consequently, their chances of academic success (e.g., retention, time to graduation) all Mayfield College of Engineering students who are

(a) "College-ready" based on TSI,

(b) are not transferring math credits from a higher education institution, and

(c) are not transferring AP math credits

will be placed into mathematics according to **Placement Path 2 (ALEKS-PPL)** of the Tarleton Mathematics Placement Policy (p. 380).

Departments and Programs

- **Department of Computer Science and Electrical Engineering (p. 235)**
  - BS in Artificial Intelligence and Machine Learning
  - BS in Computer Science
  - BS in Cybersecurity
  - BS in Electrical Engineering
- **Department of Mechanical, Environmental and Civil Engineering**
  - BS in Mechanical Engineering
  - BS in Environmental Engineering
  - BS in Civil Engineering
- **Department of Engineering Technology**
  - BS in Construction Science and Management
  - BAS in Construction Science and Management
  - BS in Manufacturing Engineering Technology
  - BAS in Manufacturing Engineering Technology
  - BS in Mechanical Engineering Technology
  - BAS in Mechanical Engineering Technology
  - BS in Industrial Technology
  - BAAS in Manufacturing and Industrial Management

Department of Computer Science and Electrical Engineering

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The department of Computer Science and Electrical Engineering (CSEE) offers bachelor's degrees in Artificial Intelligence and Machine Learning, Cybersecurity, Electrical Engineering and Computer Science, and a master's degree in Computer Engineering and a master's degree in Artificial Intelligence & Machine Learning. CSEE majors engage in hands-on applications of discipline-related concepts and tools, taught in an engaging, student-centered environment. Our main goal is the academic success of our students. The department has state-of-the-art instructional and research equipment, including general-purpose computer labs, dedicated labs for circuits, systems, networking, and robotics, industry-standard software, high-performance PCs and workstations for AI/ML, and instructional software for cybersecurity. Students gain practical experience with these tools throughout the curriculum, and they also conduct undergraduate and graduate research with our faculty. Any degree from the CSEE department opens doors to challenging and rewarding high-tech careers in engineering, computing, and cybersecurity.

Math Readiness

Our programs do not have admission standards separate from those of the university; however, math preparedness is a critical component of success in all of them. It is important for potential majors to strive to prepare in mathematics prior to entering college. All our bachelor's programs start with MATH 2413 Calculus I as the first math course, and *placement* is required for incoming freshmen to register for Calculus 1. The Mayfield College of Engineering (MCOE) upholds a

Math Placement Policy to ensure that students are placed into the appropriate math courses. For more information, please see the MCOE page or your academic advisor.

If you plan to start at a community college and then transfer to one of our programs, be advised that:

- Coursework in all our majors is very sequential – each course has one or more prerequisites – so it is important to start taking courses *in your major* as early as possible if you wish to graduate in a four-year time frame.
- Choosing to take only general education courses before transferring to one of our programs is not recommended. Please contact the department for guidance on including appropriate math, science, and introductory engineering and CS content – we'll be happy to help!

Electrical engineering majors who are not college-ready in mathematics are designated as "Pre-engineering" (PREN) until they are eligible to enroll in Precalculus or Plane Trigonometry; at that time they will declare an ELEN major and begin engineering coursework.

Departmental Course Prerequisite Policy

It is important for students to stay academically prepared as they progress through their curriculum. Prerequisite (taken previously) and corequisite (taken previously or concurrently) courses are in place to establish the foundational knowledge and skills needed to be successful in any given course. For the Computer Science and Electrical Engineering degrees, students must earn a grade of "C" or better in all required engineering, CS, math, science and elective coursework to graduate. The following summarizes the policy for allowing/disallowing forward progress when prerequisite conditions are not fully met:

- If a student earns an F in a prerequisite or has not taken that prerequisite, the student may NOT enroll in the follow-up course.
- If a student earns a D in a prerequisite, they are allowed a *prerequisite waiver* to enroll in the follow-up course, but only if ALL THREE following conditions are met:
  - The student has an overall GPA of 2.2 or higher, AND
  - If by not enrolling in the follow-up course, the student's graduation date is adversely impacted (advisor must check the cascading effect of not enrolling in a course), AND
  - The student has not exceeded the maximum of FOUR prerequisite waivers.
- If a student qualifies for a prerequisite waiver, they must re-enroll in the prerequisite course concurrently; if the prerequisite is not offered concurrently, the student must re-enroll on its next offering.
- A student may utilize a maximum of FOUR prerequisite waivers over the duration of their pursuit of a degree within the CSEE department. Changing majors within the department does not reset the waiver count.

The department also allows a maximum of TWO engineering or CS courses to be taken as a transient (temporary) student at another university. Consult the department office or an advisor for additional information on these policies.

Bachelor of Science in Artificial Intelligence and Machine Learning

The Bachelor of Science degree in Artificial Intelligence and Machine Learning (AIML) prepares graduates to enter the high-tech workforce or to continue their studies at the graduate level. We offer a curriculum that includes a broad introduction to AI, as well as the relevant computer science and mathematics foundations of the field. A sequence of in-depth courses then cover the main areas of applications and research in AIML: neural networks, computer vision, robotics, autonomous systems, and reinforcement learning. Students are encouraged to gain experience in complementary technical areas through technical electives.

General Education Requirements (p. 396)		**42**
COSC 1302	Introduction to Computer Science	3
COSC 1436	Programming Fundamentals I	4
COSC 2421	C++ Programming	4
COSC 2441	Data Structures and Algorithms	4
COSC 2345	Introduction to Artificial Intelligence	3
COSC 2448	Introduction to Digital Systems Design	4
COSC 3344	Computer Applications in Analysis	3
COSC 3360	Python Programming for Data Science	3
COSC 3466	Computer Vision	4
COSC 3443	Computer Architecture	4
COSC 4345	Reinforcement Learning	3
COSC 4346	Robotics and Autonomous Systems	3
COSC 4460	Machine Learning	4
COSC 4361	Deep Neural Networks	3
COSC 4378 [WI (p. 396)]	Computer Networks	3
COSC 4381 [WI (p. 396)]	AI and Machine Learning Capstone	3
Placement is required for MATH 2413 (Calculus 1). See the MCOE catalog page for details.		
MATH 2413 [shared]	Calculus I	
MATH 2414	Calculus II	4
PHYS 2425 [shared]	University Physics I	
MATH 3310	Discrete Mathematics	3
MATH 3318	Linear Algebra	3
MATH 3311	Probability and Statistics I	3
MATH 4311	Probability and Statistics II	3
Choose 7 hours from the following:		7
Any COSC course from 2331, 3341, 3364, 3480, 3389, 4441, 4088		
Any MATH course from 3301, 3306, 3360, 3364, 3433, 4306, 4311, 4320, 4332		
Any BCIS course from 1305, 1317, 3332, 3333, 3342, 3343, 3347, 4350		
Total Hours		**120**

Bachelor of Science in Electrical Engineering

The Electrical Engineering program at Tarleton State University was launched in Fall 2014 and is accredited by the Engineering Accreditation Commission of ABET, www.abet.org. The mission of the Electrical Engineering program is to prepare graduates for employment in Electrical Engineering related industries, for engineering licensure, and for graduate studies in Electrical, Computer and related engineering and science disciplines. This is accomplished through an

application-oriented curriculum and experiences in which students develop their ability to synthesize concepts into solutions, use modern analytical tools and techniques, communicate professionally and work in a team environment. The program provides both breadth and depth in topics including digital systems, electronics, signal processing and control systems. Additional studies in ethics assure that the graduate understands engineers' special obligations to society. This results in engineering graduates who strive to advance the engineering profession through technical competence, innovative problems solving and design, professional conduct, and lifelong learning.

Students must earn a grade of “C” or better in all engineering, CS, math, and science coursework in order to graduate. Students are strongly encouraged to take the Fundamentals of Engineering (FE) licensure exam, and resources for FE preparation are provided.

General Education Requirements (p. 396)		42
ENGR 1211	Engineering Fundamentals I	2
ELEN 1212	Introduction to Electrical Engineering	2
ENGR 2322	Engineering Thermodynamics I	3
ENGR 3311	Engineering Mathematical Methods	3
ENGR 4259	Engineering Capstone I	2
ENGR 4360 [WI (p. 396)]	Engineering Capstone II	3
ELEN 2425	Electrical Circuit Theory	4
ELEN 2448	Introduction to Digital System Design	4
ELEN 3314 [WI (p. 396)]	Signals and Systems	3
ELEN 3320	Engineering Analysis Techniques	3
ELEN 3443	Computer Architecture	4
ELEN 3310	Power Systems Engineering	3
ELEN 3445	Electronics I	4
ELEN 4340	Digital VLSI Design	3
ELEN 4336	Solid State Physics	3
ELEN 4443	Linear Control System Design	4
ELEN 4341	Microprocessor System Design	3
ELEN 4446	Electronics II	4
ELEN 4350	Communication Systems Theory	3
ELEN 4355	Digital Signal Processing	3
Advanced COSC, MATH, or ELEN elective - Choose from the following:		3
COSC 3360	Python Programming for Data Science	
COSC 3466	Computer Vision	
COSC 4301	Database Theory and Practice	
MATH 3310	Discrete Mathematics	
COSC 4378 [WI (p. 396)]	Computer Networks	
MATH 3320	Foundations of Mathematics	
MATH 4306	Partial Differential Equations	
MATH 4320	Mathematical Modeling	
ELEN 4088	Undergraduate Research Project	
CHEM 1409	College Chemistry for Engineers	4
COSC 1436	Programming Fundamentals I	4
PHYS 2425 [shared]	University Physics I	
PHYS 2426 [shared]	University Physics II	
Placement for required for Calculus 1 (MATH 2413)		
MATH 2413 [shared]	Calculus I	
MATH 2414	Calculus II	4
MATH 3433	Calculus III	4
MATH 3306	Differential Equations	3
Total Hours		**127**

Bachelor of Science in Computer Science

The Bachelor of Science degree in Computer Science prepares graduates to enter the high-tech workforce or to continue their studies at the graduate level. We offer concentrations in **software engineering, artificial intelligence and machine learning, computer engineering, cybersecurity** and **game development**. The program provides a strong foundation in hardware, software, mathematics and general science, aligned with curriculum standards set forth within the Computer Science discipline. Students are encouraged to gain experience in complementary technical areas through technical electives.

Student must earn a grade of “C” or better in all CS, math, science, and elective coursework in order to graduate.

Placement is required for MATH 2413		
General Education Requirements (p. 396)		42
MATH 2413	Calculus I	4
MATH 1342 [shared]	Elementary Statistical Methods	
MATH 2414	Calculus II	4
MATH 3310	Discrete Mathematics	3
PHYS 2425 [shared]	University Physics I	
COSC 1302	Introduction to Computer Science	3
COSC 1436	Programming Fundamentals I	4
COSC 2421	C++ Programming	4
COSC 2431	Java Programming	4
COSC 2441	Data Structures and Algorithms	4
COSC 2448	Introduction to Digital Systems Design	4

COSC 3443	Computer Architecture	4
COSC 3480	Operating Systems	4
COSC 3389 [WI (p. 396)]	Software Engineering I	3
COSC 4378 [WI (p. 396)]	Computer Networks	3
Advanced Technical Electives [1]		6
Total Hours		**96**

Artificial Intelligence and Machine Learning

COSC 2345	Introduction to Artificial Intelligence	3
COSC 3360	Python Programming for Data Science	3
COSC 3466	Computer Vision	4
COSC 4460	Machine Learning	4
COSC 4361	Deep Neural Networks	3
MATH 3318	Linear Algebra	3
COSC or approved MATH, BCIS, or Digital Media Studies electives, at least 3 advanced.		4
Total Hours		**24**

Computer Systems

PHYS 2426 [shared]	University Physics II	
MATH 3306	Differential Equations	3
ELEN 2425	Electrical Circuit Theory	4
COSC 4341	Microprocessor System Design	3
ELEN 3314 [WI (p. 396)]	Signals and Systems	3
Select 11 hours from the following:		11
ELEN 3310	Power Systems Engineering	
ELEN 4350	Communication Systems Theory	
ELEN 4355	Digital Signal Processing	
ELEN 3445	Electronics I	
ELEN 4446	Electronics II	
ELEN 4443	Linear Control System Design	
ELEN 4336	Solid State Physics	
ELEN 4340	Digital VLSI Design	
Total Hours		**24**

Cybersecurity

COSC 3360	Python Programming for Data Science	3
COSC 4460	Machine Learning	4
COSC 3364	Principles of Cybersecurity	3
MATH 3301	Number Theory	3
Advanced COSC elective		3
Advanced COSC or approved MATH, BCIS, or CRIJ electives, at least 4 advanced.		8
Total Hours		**24**

Game Development

COSC 3330	Games, Graphics and GUIs	3
MATH 3318	Linear Algebra	3
ARTS 2344	Game Design	3
Select 6 hours from the following:		6
ARTS 3363	Tradigital Animation I	
ARTS 4363	Tradigital Animation II	
ARTS 3366	3D Video Game Environment I	
ARTS 4366	3D Video Game Environment II	
ARTS 4367	3D Rendering and Lighting	
ARTS 4370	Interaction Design	
Two advanced COSC electives		6
Advanced COSC or approved MATH, BCIS, or Digital Media Studies elective		3
Total Hours		**24**

General Computer Science

COSC 4301	Database Theory and Practice	3
MATH 3318	Linear Algebra	3
Two advanced COSC electives		6
COSC or approved MATH, BCIS, or Digital Media Studies electives (at least 8 hours advanced)		12
Total Hours		**24**

Software Development

COSC 3390	Software Engineering II	3
COSC 4389	Programming Languages Fundamentals	3
COSC 4301	Database Theory and Practice	3
COSC 4351	Distributed Applications	3
MATH 3318	Linear Algebra	3
COSC or approved MATH, BCIS, or Digital Media Studies elective, at least 5 advanced.		9
Total Hours		**24**

Bachelor of Science in Cybersecurity

Placement is required for Calculus 1.		
General Education Requirements (p. 396)		42
MATH 1342 [shared]	Elementary Statistical Methods	
MATH 2413	Calculus I	4
MATH 2414	Calculus II	4
PHYS 2425 [shared]	University Physics I	
MATH 3310	Discrete Mathematics	3
COSC 1302	Introduction to Computer Science	3
COSC 1436	Programming Fundamentals I	4
COSC 2421	C++ Programming	4
COSC 2441	Data Structures and Algorithms	4
COSC 3341	Applied Cryptography	3
COSC 3443	Computer Architecture	4
COSC 3360	Python Programming for Data Science	3
COSC 3480	Operating Systems	4
COSC 4301	Database Theory and Practice	3
COSC 3364	Principles of Cybersecurity	3
COSC 4460	Machine Learning	4
COSC 4365	Software Security	3
COSC 4378 [WI (p. 396)]	Computer Networks	3
Select 6 credits from BCIS courses:		6
BCIS 4320	Computer Forensics	
BCIS 4342	Ethical Hacking & Network Defense	
BCIS 4345	Network and Systems Security	
CRIJ 4353	Global Cyber-Security	3
COSC 4380 [WI (p. 396)]	Cybersecurity Capstone	3
Approved COSC, MATH, BCIS, or CRIJ electives, at least 9 hours advanced		10
Total Hours		**120**

Professors

- Martinez, Denise Dr.
- Agapie, Mircea Dr.

Associate professors

- Abu Ghazaleh, Haitham Dr.
- Diamantas, Sotirios Dr.
- Wyers, Eric Dr.

Assistant professor

- Gubbi Sadashiva, Thejas Dr.

Instructors

- Joseph Meier Mr.
- Sean Wallinger Mr.
- Zarza-Lopez, Luis Mr.

Computer Engineering Courses

Computer Science Courses

COSC 1302. Introduction to Computer Science. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
History of computers and of their applications in a variety of fields, both as PCs and as embedded systems. Overview of programming paradigms. Overview of today's most dynamic computer-related technologies, including communication networks, the Internet and artificial intelligence. Ethical and social problems associated with computers and programming. A modern programming language is used to present types of problems that can be solved with computers, the underlying algorithms, and the fundamental limitations. Students apply their newly-acquired programming skills to performing basic information-processing tasks. Lab fee $2.

COSC 1436. Programming Fundamentals I. 4 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
This course introduces the fundamental concepts of structured programming, and provides a comprehensive introduction to programming for computer science and technology majors. Topics include software development methodology, data types, control structures, functions, arrays, and the mechanics of running, testing, and debugging. This course assumes computer literacy. Prerequisite: Concurrent or prior enrollment in one of the following MATH courses: 1314, 1316, 2412, 2413.

COSC 2345. Introduction to Artificial Intelligence. 3 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).
The course introduces the basic ideas and techniques underlying the design of intelligent computer systems. Topics include the history of Artificial Intelligence, types of agents and environments, knowledge representation, searching, constraints, heuristics, adversarial search, planning, Bayes' Rule, Bayesian networks, Markov chains, supervised and unsupervised learning, artificial neural networks. Prerequisite: COSC 1310 and either MATH 1342 or MATH 3311.

COSC 2421. C++ Programming. 4 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
Applies the object-oriented programming paradigm using the C++ programming language. The focus is on the definition and use of classes, interfaces, data encapsulation, inheritance, and polymorphism, templates and exceptions. Presents an introduction to object-oriented design. Prerequisite: COSC 1436.

COSC 2431. Java Programming. 4 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
The main parts of the Java programming language are covered, including classes, methods, interfaces, inheritance, polymorphism, generics, lambda expressions, annotations, exceptions, threads and synchronization, collections, Java IO and NIO API. Prerequisite: COSC 1436 Lab fee: $2.

COSC 2441. Data Structures and Algorithms. 4 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
Recursion, fundamental types of data structures (stacks, queues, linked lists, hash tables, trees, graphs, and matrices) and algorithms (brute-force, divide-and-conquer, dynamic programming, greedy), searching and sorting, space-time trade-offs, algorithmic analysis for recursive and non-recursive algorithms, as well as an introduction to the limits of computing and NP-completeness. Application of programming techniques to the implementation of the fundamental data structures and algorithms covered. Prerequisite: COSC 1436, or BCIS 3332, or BCIS 3343. Lab fee: $2.

COSC 2448. Introduction to Digital Systems Design. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
Combinational and sequential digital system design techniques; programmable logic devices; computer components (ALU, memory, IO circuits); hardware description language (VHDL); introduction to machine and assembly languages. Credit for both COSC 2448 and ELEN 2448 will not be awarded. Prerequisite: COSC 1436 (or concurrently), or ELEN 1212 (prerequisite), or MEEN 2212 (prerequisite) Lab fee: $2.

COSC 3330. Games, Graphics and GUIs. 3 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).
2D and 3D graphics; the main building-blocks of game design, from a programmer's perspective, such as character animation, scene navigation, shading, modeling, game rules, and GUI. Prerequisites: COSC 2421 and COSC 2441 Lab fee: $2.

COSC 3341. Applied Cryptography. 3 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).
Introduction to cryptography as it applies to computer security. It describes modern cryptographic systems and potential attacks against them. Topics include symmetric and asymmetric encryption algorithms, authentication, key exchange protocols, and blockchain technology. Applications to electronic commerce, including business, ethical and legal issues. Prerequisites: COSC 2441 and either MATH 3310 or MATH 3301 concurrently Lab fee: $2.

COSC 3344. Computer Applications in Analysis. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Binary representations of integers and floating-point numbers; solutions to specific and general polynomial equations; regression and iteration techniques; approximate derivation and integration; error analysis; linear systems and matrix algorithms; other selected numerical algorithms, including non-linear ones. Use of MATLAB (or other similar computational tools) for performing computational analysis and generating graphical interpretations of the results is also included. Prerequisites: MATH 2414 and one of the following: COSC 1436 or BCIS 3332 or BCIS 3333. Lab fee: $2.

COSC 3360. Python Programming for Data Science. 3 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).
Programming tools are used to illustrate the components of the data pipeline: data collection, cleaning, exploration, modeling, visualization, and applications. The course includes an introduction to machine learning. A scripting language and some of its scientific libraries are introduced and covered in considerable detail. Both text analysis and numerical analysis are covered. The course includes an introduction to some basic machine learning algorithms. Prerequisite: COSC 1436 or BCIS 3332 or BCIS 3343 or STAT 2301. Lab fee: $2.

COSC 3364. Principles of Cybersecurity. 3 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).
This course introduces students to the fundamental concepts and best practices of cybersecurity. Security policies and mechanisms; threats, vulnerabilities, risks, and controls; authentication; access control; cryptography; software security; web security; operating system security; network security; database security; cloud computing security; cybersecurity ethical issues. Prerequisite: COSC 2421 or COSC 2431 or COSC 2441 or COSC 2448 or ELEN 2448. Lab fee: $2.

COSC 3389. Software Engineering I. 3 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour). [WI (p. 396)]
A software engineering project, covering the software development process (incremental and agile vs waterfall), software requirements (functional and nonfunctional requirements, software quality), Unified Modeling Language, conceptual and behavioral modeling, software architecture, and design principles. Emphasizes teamwork, and explores ethical and legal principles applied to computing practice. Prerequisite: COSC 2431 or COSC 2441.

COSC 3390. Software Engineering II. 3 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).
The course is a follow-up to Software Engineering I. The main topics are: tools used in software development, coding practices, design patterns, code smells and refactoring, and testing (black box vs white box testing, unit tests, integration tests, acceptance tests). Prerequisite: COSC 3389 Lab fee: $2.

COSC 3443. Computer Architecture. 4 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
Hardware and software structures found in modern digital computers. Digital circuits, instruction set architecture, hardwired design of the processor, assembly language programming, microprogramming, I/O and memory units, analysis of instruction usage, hardware complexity, and parallel computer architectures and programming. Credit for both COSC 3443 and ELEN 3443 will not be awarded. Prerequisite: COSC 1436 or COSC 2421 or COSC 2431. Lab fee: $2.

COSC 3466. Computer Vision. 4 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
An introduction to the field of computer vision algorithms. It covers a broad range of topics, from simple to complex, such as: image formation, camera calibration, image processing, edge detection, filtering, feature extraction, image segmentation, optical flow, and multiple-view geometry algorithms. It also provides an introduction to deep learning and robotics applications. Prerequisite: COSC 1436 Lab fee: $2.

COSC 3480. Operating Systems. 4 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
Introduction to the design and development of operating systems. Analysis of current system software technology, including process management, memory organization, security, and file systems. Prerequisite: COSC 2441 Lab fee: $2.

COSC 4086. Special Problems. 1-4 Credit Hours (Lecture: 1-4 Hours, Lab: 1-4 Hours).
Directed study of selected topics in Computer Science. May be repeated with approval of department head.

COSC 4088. Undergraduate Research Project. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 0-0 Hours).
Methods of research in computer science through a research project directed by a departmental faculty member. The student is required to prepare a final report and presentation. No credit is earned until the final report and presentation are certified as completed by the faculty member directing the project. Prerequisites: Junior standing.

COSC 4301. Database Theory and Practice. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Database models, with emphasis on relational databases. SQL, conceptual modeling, relational algebra, functional dependency theory, normalization and normal forms. File and data management principles underlying database construction. Optimization algorithms and indexing. Prerequisites: COSC 2441 or MATH 3310 or ENGR 3311 or ELEN 3320 Lab fee: $2.

COSC 4341. Microprocessor System Design. 3 Credit Hours (Lecture: 2 Hours, Lab: 3 Hours).
Introduction to microprocessors; 8/16 bit single board computer hardware and software designs; chip select equations for memory board design, serial and parallel I/O interfacing; ROM, static and dynamic RAM circuits for no wait-state design; assembly language programming, stack models, subroutines and I/O processing. Credit for both COSC 4341 and ELEN 4341 will not be awarded. Prerequisite: COSC 1436 and (ELEN 2448 or COSC 2448). Lab fee: $2.

COSC 4345. Reinforcement Learning. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will provide an introduction to, and comprehensive overview of, reinforcement learning (RL). Topics include Markov decision process and dynamic programming, Monte-Carlo methods, temporal difference learning, integration of planning and learning, policy gradient and actor-critic methods, deep learning and deep RL algorithms. Students will engage in exercises and projects that involve coding in simulated RL environments. Credit will not be awarded for both COSC 4345 and 5345. Graduate students will have to complete additional assignments. Prerequisite: MATH 3311, MATH 3318, and one of (COSC 2345, COSC 3360, COSC 3366).

COSC 4346. Robotics and Autonomous Systems. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Overview of the major areas of robotics and autonomous systems. AI, machine learning and optimization algorithms that enable autonomous agents to operate in unstructured, dynamic environments, including localization and mapping, sensor fusion, computer vision, path planning, communication, and obstacle avoidance. Students will engage in exercises and projects that involve developing robotics systems with autonomous actions, and evaluating their performance using computer simulations and physical robotic systems. Credit will not be awarded for both COSC 4346 and 5346. Graduate students will have to complete additional assignments. Prerequisite: MATH 2413 and one of (COSC 2345, COSC 3360, COSC 3466).

COSC 4351. Distributed Applications. 3 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).
A study of the architecture and design of distributed applications. N-tier application and supporting technologies are investigated including client/server architecture, supporting languages, transaction processing, and distribution of processes. Prerequisites: COSC 2431 and COSC 2441. Lab fee: $2.

COSC 4361. Deep Neural Networks. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduction to the principles and theory of neural networks, with emphasis on deep neural networks. Topics include convolutional networks, recurrent and LSTM networks, regularization, tuning and optimization, as well as mathematical and programming tools. Applications to regression, classification, image recognition. Credit will not be awarded for both COSC 4361 and 5361. Graduate students will have to complete additional assignments. Prerequisite: MATH 2413 and one of (MATH 1342, MATH 3311, ENGR 3311) and one of (COSC 2345, COSC 3360, COSC 3466).

COSC 4365. Software Security. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduces the basic software security principles and pitfalls, including defensive programming, buffer, integer and string problems, runtime errors, data protection, secure file access. Covers mechanisms and tools used to make software systems more secure, including architectural approaches to building secure software. Prerequisite: COSC 2421 Lab fee: $2.

COSC 4378. Computer Networks. 3 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour). [WI (p. 396)]
Presentation of computer network layered architecture, going through the five main layers: physical, data link, network, transport, and application. Emphasis is placed on medium access control sub-layer for local area networks, routing algorithms and protocols, connectionless and connection-oriented transport services, application layer services and protocols, security, and modern wireless access technologies. Prerequisites: COSC 2441 or MATH 3310 or ENGR 3311 or ELEN 3320 Lab fee: $2.

COSC 4380. Cybersecurity Capstone. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
Students apply cybersecurity principles and techniques to develop a complex information system starting from customer requirements and progressing through the entire analysis, design, implementation, testing, and delivery lifecycle. Students work in teams to develop a project plan, complete the technical components of the project, test, and prepare deliverable documents. Prerequisites: Cybersecurity major and senior standing.

COSC 4381. AI and Machine Learning Capstone. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
Students apply AI and Machine Learning (ML) principles and algorithms to develop a complex system starting from customer requirements and progressing through the entire analysis, design, implementation, testing, and delivery lifecycle. Students work in teams to develop a project plan, complete the technical components of the project, test, prepare deliverable documents, and present the project. Prerequisite: AIML major and senior standing.

COSC 4389. Programming Languages Fundamentals. 3 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
The course is about the principles of programming languages, concepts of language processing, program representation, and language translation and execution. The main topics are formal description of programming languages, syntax analysis, semantic analysis, code generation, and runtime systems. Prerequisite: COSC 2431, COSC 2441 Lab fee: $2.

COSC 4460. Machine Learning. 4 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
This course is a broad introduction to machine learning algorithms, with emphasis on their application in data science and cybersecurity. Topics include dimensionality reduction, regression, clustering, support vector machines, decision trees, naïve Bayes, and neural networks. The course includes a significant project component, with real-world data. Prerequisite: COSC 2441 and COSC 3360, and either (MATH 1342, or MATH 3311, or ENGR 3311). Lab fee: $2.

Electrical Engineering Courses

ELEN 1212. Introduction to Electrical Engineering. 2 Credit Hours (Lecture: 1 Hour, Lab: 3 Hours).
The course elaborates on the question “What is Electrical Engineering?”, and also aims to cover background and basics on various topics in electrical engineering, such as analog and digital circuitry, microelectronics, signal processing, control systems, communication systems, and power systems. After learning some fundamental theories and concepts, the students will apply them to standard electrical system designs and analysis. The students will also utilize a variety of systems testing and circuit prototyping tools, such as digital multimeters, oscilloscopes, function generators, electronic workstations, along with industry-standard software. Prerequisite: ENGR 1211 Lab fee: $2.

ELEN 2425. Electrical Circuit Theory. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
Theory of electrical circuits, including voltage, current, power, and energy as circuit variables and sources, resistors, capacitors, and inductors as circuit elements. Coverage of disciplined circuit analysis techniques, equivalent circuit models, maximum power transfer, ideal operational amplifiers, first- and second-order circuits, sinusoidal steady state operation, phasor analysis, and computer-aided circuit simulation. This course concludes with an introduction to system-level concepts, the Bode response, and system transfer functions. Prerequisite: PHYS 2426 or concurrent registration; MATH 2414 or concurrent registration. Lab fee: $2.

ELEN 2448. Introduction to Digital System Design. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
Combinational and sequential digital system design techniques; programmable logic devices; computer components (ALU, memory, IO circuits); hardware description language (VHDL); introduction to machine and assembly languages. Credit for both COSC 2448 and ELEN 2448 will not be awarded. Prerequisite: COSC 1436 (or concurrently), or ELEN 1212 (prerequisite), or MEEN 2212 (prerequisite) Lab fee: $2.

ELEN 3310. Power Systems Engineering. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduction to the generation, transmission, distribution and utilization of electric power, along with the electrical devices connected to such systems including generators, motors and transformers. Topics include: fundamentals of electromagnetic field theory, fundamentals of electric power, basic components of power systems, three-phase systems, transformers, electric machines, AC and DC motors, generators, power generation and distribution, power plants, transmission lines, and renewable energy systems. Prerequisite: ELEN 2425; MATH 3306 or concurrent registration.

ELEN 3314. Signals and Systems. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
Modeling and analysis of electrical and mechanical systems using Laplace transformation methods; transient and steady-state analysis; Fourier series; Fourier transform; elementary feedback. Prerequisites: ELEN 2425, MATH 3306 or concurrent registration.

ELEN 3320. Engineering Analysis Techniques. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
This course covers the applications and implementation of numerical algorithms commonly encountered in engineering and scientific analyses. Topics may include statistical analysis, analysis of linear and non-linear systems, optimization and linear programming, numerical differentiation and integration, and analysis of differential equations. Use of MATLAB (or other similar computational tools) for performing computational analysis and generating graphical interpretations of the results is also included. Prerequisite: (MATH 3306 or concurrent enrollment) and (MEEN 2212 or COSC 1436). Lab fee: $2.

ELEN 3443. Computer Architecture. 4 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
Hardware and software structures found in modern digital computers. Digital circuits, instruction set architecture, hardwired design of the processor, assembly language programming, microprogramming, I/O and memory units, analysis of instruction usage, hardware complexity, and parallel computer architectures and programming. Credit for both ELEN 3443 and COSC 3443 will not be awarded. Prerequisite: COSC 1436 or COSC 2421 or COSC 2431. Lab fee: $2.

ELEN 3445. Electronics I. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
A first course in microelectronics intended to give students an introduction to the analysis and design of analog and digital integrated circuits. Topics include: semiconductor physics theory and operating principles of the p-n junction, MOS field effect transistor (MOSFET), and bipolar junction transistor (BJT); operational amplifiers; large- and small-signal equivalent circuit models of diodes, MOSFETs, and BJTs; single-transistor amplifier configurations; digital logic circuits. Prerequisite: ELEN 2425; ELEN 3314 or concurrent registration Lab fee: $2.

ELEN 4086. Special Problems. 1-4 Credit Hours (Lecture: 1-4 Hours, Lab: 1-4 Hours).
Directed study of selected topics in Electrical Engineering. May be repeated with approval of department head.

ELEN 4088. Undergraduate Research Project. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 0 Hours).
Methods of research in electrical engineering through a research project directed by a departmental faculty member. The student is required to prepare a final report and presentation. No credit is earned until the final report and presentation are certified as completed by the faculty member directing the project. Prerequisites: Junior standing.

ELEN 4336. Solid State Physics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course covers the basic principles required to understand the operation of solid-state devices with an emphasis on device physics. Semiconductor fundamentals including crystals and energy bands, charge carriers (electrons and holes), doping, and transport (drift and diffusion); basic concepts of generation-recombination and the P-N junction as capacitors and current rectifier; semiconductor device equations developed from fundamental concepts; P-N junction theory developed and applied to the analysis of devices such as varactors, bipolar transistors, and field-effect transistors. Prerequisites: ELEN 3445 and MATH 3306.

ELEN 4340. Digital VLSI Design. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduces the key concepts to design CMOS VLSI digital integrated circuits. Topics include the basic physical operation and terminal characteristics of CMOS devices, CMOS fabrication highlights, the design of logic gates, static and dynamic digital circuits, timing, memory, and low-power techniques. A project will give students the opportunity to design a digital integrated circuit block from specifications by the use of computer-aided design tools. Prerequisite: ELEN 1212; ELEN 2425; ELEN 2448.

ELEN 4341. Microprocessor System Design. 3 Credit Hours (Lecture: 2 Hours, Lab: 3 Hours).
Introduction to microprocessors; 8/16 bit single board computer hardware and software designs; chip select equations for memory board design, serial and parallel I/O interfacing; ROM, static and dynamic RAM circuits for no wait-state design; assembly language programming, stack models, subroutines and I/O processing. Credit for both COSC 4341 and ELEN 4341 will not be awarded. Prerequisite: COSC 1436 and (ELEN 2448 or COSC 2448). Lab fee: $2.

ELEN 4350. Communication Systems Theory. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduction to the frequency and time domain; modulation; random signal theory; network analysis using nondeterministic signals; basic information theory; noise. Prerequisites: ELEN 3314 and ELEN 2425.

ELEN 4355. Digital Signal Processing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduction to discrete-time signal processing and discrete-time systems. Topics include: discrete-time linear systems, difference equations, z-transforms, discrete convolution, stability, discrete-time Fourier transforms, analog-to-digital and digital-to-analog conversion, digital filter design, discrete Fourier transforms and fast Fourier transforms, spectral analysis, and applications of digital signal processing. Prerequisite: ELEN 3314.

ELEN 4443. Linear Control System Design. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
Application of state variable and frequency domain techniques to modeling and analysis of single input, single output linear control systems; physical implementation of control systems by integrating sensors, actuators and other control system components; use of software design tools. Prerequisite: ELEN 2425, MATH 3306, and either ELEN 3320 or COSC 3344. Lab fee $2.

ELEN 4446. Electronics II. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
A second course in microelectronics emphasizing the analysis and design of analog integrated circuits. Topics include: MOSFET and BJT fabrication technologies; current mirrors and biasing techniques; amplifier topologies; frequency response of analog integrated circuits; feedback, stability, and amplifier compensation techniques; output stages; noise in integrated circuits; linear integrated circuit applications. Prerequisites: ELEN 3445 and ELEN 3314 Lab fee: $2.

Department of Engineering Technology

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Engineering Technology is part of the engineering field which requires the application of scientific and engineering knowledge and methods combined with technical skills in support of engineering activities. The mission of the Department of Engineering Technology is to provide students an academically challenging program of study in technical fields that prepares graduates to make immediate contributions, to establish successful careers, and to assume leadership roles in engineering, manufacturing, and construction. By leveraging the substantial experience of its faculty, the department offers programs focused on application and experiential learning that support the combination of conceptual and practical skills. This approach allows our students to see technology in terms of theory, implementation, and innovation.

The Department offers programs of study leading to a Bachelor of Science degree in Construction Science and Management, Industrial Technology, Manufacturing Engineering Technology, and Mechanical Engineering Technology. The department also offers several opportunities for the adult student seeking to advance career opportunities. The department offers three degrees online: a Bachelor of Applied Arts and Sciences degree in Manufacturing and Industrial Management, a Master of Science degree in Quality and Engineering Management, and a Master of Science degree in Construction Science and Management. These allow our students to maintain professional and personal commitments while furthering their education. Face-to-face options are the Bachelor of Applied Sciences in Construction Science and Management, Manufacturing Engineering Technology, and Mechanical Engineering Technology.

Bachelor of Science in Construction Science and Management

The mission of the Construction Science and Management (CSM) program is to provide graduates with knowledge and skills valued by commercial, residential, industrial and heavy civil sectors of the construction industry. The curriculum integrates the study of materials, methods, and quality with technologies and management systems required to successfully plan, execute, and closeout construction projects of varying sizes and complexities. The program is structured with an emphasis on hands on lab work and instruction along with development of supervision and communication skills necessary to manage and oversee construction projects. Courses include construction materials and methods, site safety, estimating, scheduling, plan and specification reading, utilization of computer technologies, fundamentals of project and site management, and contract administration. Graduates from the program enter the workplace as construction managers, project managers, superintendents, project coordinators, project engineers, estimators, and schedulers. The program is supported by the Construction Industry Advisory Council (CIAC) which provides students with access to internships, construction industry guest lecturers, and project site visits. These industry experts provide real-world opportunities to students, forming an invaluable part of their learning process.

Program Course Prerequisite Policy

It is important for students to stay academically prepared as they progress through their curriculum. Prerequisite (taken previously) and corequisite (taken previously or concurrently) courses are in place to establish the foundational knowledge and skills needed to be successful in any given course. For all major courses in CSM, students must earn a grade of C or better, otherwise the course must be repeated. If a student makes a D or an F in a CSM major course and the course is not a prerequisite or corequisite to a future course, then the course should be repeated in the next semester the course is offered.

If the student makes a D or an F in a course and that course is a prerequisite (prereq) and/or corequisite (coreq) to future courses, then the following shall apply:

- If a student earns an F in a prereq course or has not taken the necessary prereq(s), then the student may NOT enroll in the follow-up course.
- If a student earns a D in a prereq for a course, the student IS allowed a prereq waiver to enroll in the follow-up course only if ALL THREE of the following conditions are met:

    1. The student has an overall GPA of 2.4 or higher, AND
    2. If by not enrolling in the follow-up course, the student's graduation date is adversely impacted (advisor must check the cascading effect of not enrolling in a course), AND
    3. The student has not exceeded the maximum of FOUR prereq waivers.

    - If a student qualifies for a prereq waiver, the student must re-enroll in the prereq course concurrently. If the prereq course is not offered concurrently, the student must re-enroll on its immediate next offering.
    - A student may utilize a maximum of FOUR prerequisite waivers over the duration of their pursuit of a degree within the CSM program.

General Education Requirements (p. 396)		42
Choose 2 of the following:		
GEOL 1307 [shared]	Introduction to Environmental Science	
GEOL 1403 [shared]	Physical Geology	
PHYS 1401 [shared]	College Physics I (Prerequisite: MATH 1316, MATH 2412, MATH 2413 or concurrent enrollment.)	
ENGT 2303 [shared]	Engineering Economy	
MATH 1342 [shared]	Elementary Statistical Methods	
MATH 1352	Math Applications for Construction Sci	3
CNST 1301	Introduction to Construction	3
CNST 1305	Construction Document Analysis	3
CNST 1306	Construction Materials and Methods I	3
CNST 1307	Construction Materials and Methods II	3
CNST 2301	Mechanical, Electrical & Plumbing Systems (MEP)	3
CNST 2311	Construction Quality Assurance & Quality Control (QA/QC)	3
ENGT 3318 [WI (p. 396)]	Research and Reporting For Technologists	3
CNST 3320	Construction Safety Management	3
CNST 3321	Construction Management	3
CNST 3323	Construction Estimating I	3
CNST 3335	Construction Layout and Site Development	3
CNST 3350	Horizontal Construction	3
CNST 3360	Vertical Construction	3
ENGT 3395 [WI (p. 396)]	Fundamentals of Industrial Project Management	3
CNST 4313	Construction Law and Ethics	3
CNST 4322	Building Information Modeling	3
CNST 4323	Construction Estimating II	3
CNST 4325	Contract Administration	3
CNST 4358	Construction Project Scheduling	3
Chose between 3 hrs of Internship or Elective		3
CNST 4387	Internship	
or Elective		
CNST 4395	Construction Capstone	3
BUSI 1301	Business Principles	3
BUSI 2301	Business Law I	3
MGMT 3300	Principles of Management	3
ACCT 4352	Construction Cost Control	3
Total Hours		**120**

The Bachelor of Science in Manufacturing Engineering Technology

The Bachelor of Science in Manufacturing Engineering Technology is designed to provide graduates with knowledge and skills in materials and manufacturing processes; product, tooling, and assembly engineering; manufacturing systems and operations; and manufacturing competitiveness. The mission of the Manufacturing Engineering Technology program is to prepare students for the challenges in manufacturing and manufacturing support and the back-office functions in an operation. Students develop the technical skills needed to solve problems through design, process, and personnel improvements and practices that are common in an industrial

setting. Coursework focuses on manufacturing and process engineering but includes the use of laboratories to reinforce student learning by designing, manufacturing, and/or troubleshooting physical systems.

General Education Requirements (p. 396)		42
ENGT 1305	Principles of Drafting	3
ENGT 1306	Applied Statics	3
ENGT 1317	Machining Technology	3
ENGT 2303 [shared]	Engineering Economy	
ENGT 2335	Solid Modeling	3
ENGT 3303 [WI (p. 396)]	Industrial Materials	3
ENGT 3318 [WI (p. 396)]	Research and Reporting For Technologists	3
ENGT 3316	Manufacturing Systems	3
ENGT 3324	Applied Polymer Processing	3
or ENGT 3325	Composites Manufacturing	
ENGT 3336	Industrial Controls	3
ENGT 3375	Continuous Improvement	3
ENGT 3386	Quality Management	3
ENGT 3395 [WI (p. 396)]	Fundamentals of Industrial Project Management	3
ENGT 4326	Applications of Linear Programming and Optimization	3
ENGT 4336	Production Planning	3
ENGT 4346	Manufacturing Management	3
ENGT 4347	Metrics and Measurements	3
ENGT 4375	Facility Planning	3
ENGT 4395	Engineering Technology Projects	3
Placement is required for MATH 1316 or MATH 2412.		
MATH 1316	Plane Trigonometry (or above)	3
or MATH 2412	Precalculus Math	
MATH 2413 [shared]	Calculus I	
MATH 2414	Calculus II	4
MATH 3311	Probability and Statistics I	3
COSC 1310	Procedural Programming	3
CHEM 1311 [shared]	College Chemistry I (Lecture)	
CHEM 1111 [shared]	College Chemistry I (Laboratory)	
PHYS 2425 [shared]	University Physics I	
Electives		11
Total Hours		**120**

The Bachelor of Science in Mechanical Engineering Technology

The mission of the Mechanical Engineering Technology program is to prepare students for the challenges in manufacturing and manufacturing support. Students develop the technical skills needed to solve problems through design, process, and system improvements and practices common in an industrial setting. Coursework focuses on mechanical components and design, automation, and system integration. Laboratories reinforce student learning through testing, designing, manufacturing, and/or troubleshooting physical systems. Graduates from this program will be uniquely qualified to address the support and process needs of manufacturing and related businesses. This program is offered in both Stephenville and RELLIS (https://www.tarleton.edu/rellis/).

General Education Requirements (p. 396)		42
ENGT 1305	Principles of Drafting	3
ENGT 1306	Applied Statics	3
ENGT 1317	Machining Technology	3
ENGT 2303 [shared]	Engineering Economy	
ENGT 2335	Solid Modeling	3
ENGT 3301	Applied Dynamics	3
ENGT 3303 [WI (p. 396)]	Industrial Materials	3
ENGT 3305	Machine Design	3
ENGT 3313	Mechanics of Materials	3
ENGT 3318 [WI (p. 396)]	Research and Reporting For Technologists	3
ENGT 3327	Mechanical Analysis	3
ENGT 3336	Industrial Controls	3
ENGT 3375	Continuous Improvement	3
ENGT 3385	Fluid Mechanics	3
ENGT 4322	Applied Thermodynamics	3
ENGT 4326	Applications of Linear Programming and Optimization	3
ENGT 4356	Advanced Industrial Controls	3
ENGT 4375	Facility Planning	3
ENGT 4395	Engineering Technology Projects	3
MATH 1316	Plane Trigonometry	3
or MATH 2412	Precalculus Math	
MATH 2413 [shared]	Calculus I	
MATH 2414	Calculus II	4
CHEM 1311 [shared]	College Chemistry I (Lecture)	
CHEM 1111 [shared]	College Chemistry I (Laboratory)	

PHYS 2425 [shared]	University Physics I	
Advanced Elective		6
General Elective		11
Total Hours		**120**

The Bachelor of Science in Industrial Technology

The Bachelor of Science degree in Industrial Technology prepares students for roles in a technical career. Areas of study include drafting and design, manual and CNC machining, and automation. The Industrial Technology program provides flexibility so students can focus on or pursue a minor in business, computer science, or other content areas. Industrial Technology graduates often work in manufacturing in areas such as technical sales and support, front-line supervision, or as machine operators. Industrial Technology students can also pursue a teaching certification to teach in a secondary school.

General Education Requirements (p. 396) [1]		42
MATH 1314 [shared]	College Algebra	
CHEM 1311 [shared]	College Chemistry I (Lecture)	
CHEM 1111 [shared]	College Chemistry I (Laboratory)	
ENGT 1305	Principles of Drafting	3
ENGT 1317	Machining Technology	3
ENGT 2335	Solid Modeling	3
ENGT 3303 [WI (p. 396)]	Industrial Materials	3
or ENGT 3304	Manufacturing Materials	
ENGT 3317	Machine Tool Technology	3
ENGT 3324	Applied Polymer Processing	3
or ENGT 3325	Composites Manufacturing	
ENGT 3345	Industrial Design	3
ENGT 3350	Numerical Control Systems	3
MATH 1316	Plane Trigonometry	3
or MATH 2412	Precalculus Math	
ENGT 3316	Manufacturing Systems	3
ENGT 3318 [WI (p. 396)]	Research and Reporting For Technologists	3
ENGT 3320	Industrial Safety	3
ENGT 3336	Industrial Controls	3
ENGT 3375	Continuous Improvement	3
ENGT 4395	Engineering Technology Projects	3
Advanced ENGT Electives		12
Electives from any field (6 Hours Advanced)		21
Total Hours		**120**

The Bachelor of Applied Arts and Sciences in Manufacturing and Industrial Management

Designed with the worker in mind, the Bachelor of Applied Arts and Sciences (BAAS) degree in Manufacturing and Industrial Management is a 100% online degree-completion program. The BAAS is designed for students who have training in a technical area and some or all of their general education classes completed. Technology courses and/or workforce training from community colleges, technical schools, the military, or employer-sponsored training may count for up to 36 credit hours of the degree requirements. The major classes are offered online, giving working professionals the flexibility to upskill while continuing to work.

General Education Requirements (p. 396)		42
MATH 1342 [shared]	Elementary Statistical Methods	
Select one of the following:		3
MATH 1314	College Algebra	
MATH 1316	Plane Trigonometry	
MATH 1324	Math for Business & Social Sciences I (Finite Mathematics)	
MATH 2412	Precalculus Math	
MATH 2413	Calculus I	
ENGT 3318 [WI (p. 396)]	Research and Reporting For Technologists	3
ENGT 3375	Continuous Improvement	3
ENGT 3395 [WI (p. 396)]	Fundamentals of Industrial Project Management	3
Advanced ENGT or CNST electives		9
Credit for Prior Learning Component (must total 45 hours):		
Credit for Prior Learning		12-45
Additional Elective Hours Required to Meet Prior Learning Component		0-33
Total Hours		**108**

Construction

CNST 3320	Construction Safety Management	3
CNST 3321	Construction Management	3
CNST 4325	Contract Administration	3
ENGT 4360	Hazardous Waste Management	3
Total Hours		**12**

Industrial Management

ENGT 3386	Quality Management	3
ENGT 4336	Production Planning	3
ENGT 4346	Manufacturing Management	3
ENGT 4347	Metrics and Measurements	3
Total Hours		**12**

Industrial Safety

ENGT 3320	Industrial Safety	3
ENGT 3360	Safety Management	3
ENGT 4320	Occupational Safety and Health	3
ENGT 4360	Hazardous Waste Management	3
Total Hours		**12**

Quality Management

ENGT 3386	Quality Management	3
ENGT 4347	Metrics and Measurements	3
ENGT 4360	Hazardous Waste Management	3
ENGT 4375	Facility Planning	3
Total Hours		**12**

The Bachelor of Applied Science Degree in Construction Science and Management

The mission of the Bachelor of Applied Science (BAS) in Construction Science and Management program is to provide graduates with knowledge and skills that are valued by commercial, residential, industrial and heavy civil sectors of the construction industry. The program is structured with an emphasis on development of supervision and communication skills necessary to manage and oversee construction projects, including contract administration, codes, plans and specifications, planning, estimating, scheduling, and evaluating project performance. Students graduating with this degree possess the skills and knowledge to compete in regional, national, and international job markets. The BAS in Construction Science and Management is geared towards students who have an Associate's degree in a technical field and are interested in earning their Bachelor's. This program is offered in both Stephenville and Fort Worth (https://www.tarleton.edu/fortworth/).

Program Course Prerequisite Policy

It is important for students to stay academically prepared as they progress through their curriculum. Prerequisite (taken previously) and corequisite (taken previously or concurrently) courses are in place to establish the foundational knowledge and skills needed to be successful in any given course. For all major courses in CSM, students must earn a grade of C or better, otherwise the course must be repeated. If a student makes a D or an F in a CSM major course and the course is not a prerequisite or corequisite to a future course, then the course should be repeated in the next semester the course is offered.

If the student makes a D or an F in a course and that course is a prerequisite (prereq) and/or corequisite (coreq) to future courses, then the following shall apply:

- If a student earns an F in a prereq course or has not taken the necessary prereq(s), then the student may NOT enroll in the follow-up course.
- If a student earns a D in a prereq for a course, the student IS allowed a prereq waiver to enroll in the follow-up course only if ALL THREE of the following conditions are met:
- The student has an overall GPA of 2.4 or higher, AND
- If by not enrolling in the follow-up course, the student's graduation date is adversely impacted (advisor must check the cascading effect of not enrolling in a course), AND
- The student has not exceeded the maximum of FOUR prereq waivers.
- If a student qualifies for a prereq waiver, the student must re-enroll in the prereq course concurrently. If the prereq course is not offered concurrently, the student must re-enroll on its immediate next offering.
- A student may utilize a maximum of FOUR prerequisite waivers over the duration of their pursuit of a degree within the CSM program.

General Education Requirements (p. 396)		42
MATH 1342 [shared]	Elementary Statistical Methods	
ENGT 3318 [WI (p. 396)]	Research and Reporting For Technologists	3
CNST 3320	Construction Safety Management	3
CNST 3321	Construction Management	3
CNST 3323	Construction Estimating I	3
CNST 3350	Horizontal Construction	3
CNST 3360	Vertical Construction	3
ENGT 3395 [WI (p. 396)]	Fundamentals of Industrial Project Management	3
CNST 4313	Construction Law and Ethics	3
CNST 4322	Building Information Modeling	3
CNST 4323	Construction Estimating II	3
CNST 4325	Contract Administration	3
CNST 4358	Construction Project Scheduling	3
CNST 4395	Construction Capstone	3
General Elective		3
Credit for Prior Learning Component:		
Prior Learning Credit		12-36
Electives		0-24
Total Hours		**120**

The Bachelor of Applied Science in Manufacturing Engineering Technology

The Bachelor of Applied Science (BAS) degree in Manufacturing Engineering Technology educates students in a wide range of manufacturing related areas: quality, ergonomics, production planning, management, productivity, automated systems, and computer modeling. The Manufacturing Engineering Technology courses are supplemented with a foundation of industrial technology courses and emphases in mathematics, statistics, and the sciences. The BAS in Manufacturing Engineering Technology is geared towards students who have an Associate's degree in a technical field and are interested in earning their Bachelor's.

General Education Requirements (p. 396)		42
Placement is required for Trig or Precal (Math 1316 or 2412)		
MATH 1316	Plane Trigonometry	3-4
or MATH 2412	Precalculus Math	
MATH 2413 [shared]	Calculus I	
MATH 2414	Calculus II	4
PHYS 2425 [shared]	University Physics I	
ENGT 2303 [shared]	Engineering Economy	
ENGT 2335	Solid Modeling	3
ENGT 3303 [WI (p. 396)]	Industrial Materials	3
ENGT 3318 [WI (p. 396)]	Research and Reporting For Technologists	3
ENGT 3324	Applied Polymer Processing	3
or ENGT 3325	Composites Manufacturing	
ENGT 3336	Industrial Controls	3
ENGT 3350	Numerical Control Systems	3
ENGT 3375	Continuous Improvement	3
ENGT 3386	Quality Management	3
ENGT 3395 [WI (p. 396)]	Fundamentals of Industrial Project Management	3
ENGT 4326	Applications of Linear Programming and Optimization	3
ENGT 4336	Production Planning	3
ENGT 4347	Metrics and Measurements	3
ENGT 4395	Engineering Technology Projects	3
General Electives		7-8
Credit for Prior Learning Component:		
Credit for Prior Learning		12-24
Electives		0-12
Total Hours		**120**

The Bachelor of Applied Science in Mechanical Engineering Technology

The mission of the Bachelor of Applied Science (BAS) in Mechanical Engineering Technology program is to prepare students for the challenges in manufacturing and manufacturing support. Students develop the technical skills needed to solve problems through design, process, and system improvements and practices that are common in an industrial setting. Coursework focuses on mechanical components and design, automation, and system integration. Laboratories reinforce student learning through testing, designing, manufacturing, and/or troubleshooting physical systems. The BAS in Mechanical Engineering Technology is geared towards students who have an Associate's degree in a technical field and are interested in earning their Bachelor's. This program is offered in both Stephenville and RELLIS (https://www.tarleton.edu/rellis/).

General Education Requirements (p. 396)		42
Placement is required for Trig or Precal (MATH 1316 or 2412)		
MATH 1316	Plane Trigonometry	3-4
or MATH 2412	Precalculus Math	
MATH 2413 [shared]	Calculus I	
MATH 2414	Calculus II	4
PHYS 2425 [shared]	University Physics I	
ENGT 2335	Solid Modeling	3
ENGT 3301	Applied Dynamics	3
ENGT 3303 [WI (p. 396)]	Industrial Materials	3
ENGT 3305	Machine Design	3
ENGT 3313	Mechanics of Materials	3
ENGT 3318 [WI (p. 396)]	Research and Reporting For Technologists	3
ENGT 3327	Mechanical Analysis	3
ENGT 3336	Industrial Controls	3
ENGT 3375	Continuous Improvement	3
ENGT 3385	Fluid Mechanics	3
ENGT 3395 [WI (p. 396)]	Fundamentals of Industrial Project Management	3
ENGT 4322	Applied Thermodynamics	3
ENGT 4395	Engineering Technology Projects	3
General Electives		7-8
Credit Prior Learning Component		
Credit for Prior Learning		12-24
Electives		0-12
Total Hours		**120**

Construction Courses

CNST 1301. Introduction to Construction. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course introduces the student to the characteristics of the construction industry; construction terminology; types of construction companies; parties involved in a project, their responsibilities, and relationships; evolution of a project; introduction to working drawings and construction documents; construction math; construction software.

CNST 1305. Construction Document Analysis. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
This course is an introductory college level class that will provide student with fundamental 2 & 3-dimensional drawings and contract specifications knowledge to technically interpret, extract, and communicate relevant information within the construction team. The course will utilize software tools appropriate for the course to guide and aid student understanding. Lab fee: $2.

CNST 1306. Construction Materials and Methods I. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
This course introduces students to the basic building materials and systems used in constructing buildings, bridges, and infrastructure projects. It offers the basic Understanding of the use of common systems such as foundations, structural framing/skeleton, building envelops, and finishes. Namely, it introduces students to proper terminology and usage of wood, steel, and concrete materials and selected manufactured components. Lab fee: $2.

CNST 1307. Construction Materials and Methods II. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
This course is an investigation into concrete and masonry construction methods, testing, and design used an residential and commercial construction is made. Topics include: concrete slab, wall, footing, and pier construction; brick and concrete masonry unit (CMU) wall construction; and decorative concrete /masonry design techniques. Lab fee: $2.

CNST 2301. Mechanical, Electrical & Plumbing Systems (MEP). 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
This course introduces students to the basic drawings, specifications, materials, installation procedures and commissioning methods common to mechanical, electrical and plumbing systems on residential and commercial construction projects.

CNST 2311. Construction Quality Assurance & Quality Control (QA/QC). 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
This course introduces students to the principles of construction quality assurance and quality control. This includes understanding the submittal, substitution and request for information (RFI) process found in typical commercial construction specifications. It will also discuss project closeout requirements including punch list management and warranty work. Field based quality control and testing will comprise the lab-based portion of the course.

CNST 2323. Construction Estimating. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
This course introduces students to the skills and tools necessary to prepare formal cost estimations for residential construction projects. It focuses on pricing, indirect costs, bid analysis and use of computer aided software. The goal of this course is to expand the student's skills in new topics of estimating and to assist in developing high confidence in the application of construction estimating skills. This course addresses the typical procedures from familiarization with the CSI Divisions, building plans, material quantification, work breakdown, work quantification, pricing and bid submittals while creating detailed cost estimates. Prerequisite: CNST 1306, CNST 1307 Lab fee: $2.

CNST 3301. Building Mechanical and Electrical Systems. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
This course introduces students to the planning and construction of mechanical and electrical systems common to construction projects. It involves basic calculations of cooling/heating loads, determination of temporary power demands, and sizing of pipes, HVAC equipment, and ducts. Lab fee: $2.

CNST 3302. Construction Cost Estimating and Analysis. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
This course covers quantification and pricing of direct field costs and general condition costs for light commercial and industrial construction projects from contract documents as well as preparation of complete lump sum bid package ready for project execution with emphasis on the use of software in the estimating process. Prior knowledge or experience in construction, mechanical, and electrical systems is recommended. Prerequisite: CNST 2323, or CNST 3301 Lab fee: $2.

CNST 3308. Residential and Commercial Building Codes. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Course introduces students to understand the basic principles of structural behavior emphasis on the the steel and wood members in residential and commercial building. This involves the application of the IRC (International Residential Code), IBC (International Building Code), AISC (American Institute of Steel Construction), and NDS (National Design Specification for Wood Construction). Lab fee: $2.

CNST 3309. Commercial Construction and Industrial Subsystems. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
This course introduces students to the terminology and functions of details of mechanical and electrical systems common to process and industrial plant projects. It involves basic calculations of systems, determination of power requirements, and selection of systems. Lab fee: $2.

CNST 3311. Construction Materials Testing and Inspection. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours). [WI (p. 396)]
Construction materials testing and inspection procedures in laboratory and field situations using standard testing equipment, methods, and field inspection techniques per ASTM and ACI standards. Laboratory reports, computer analysis, data collection and simulated field inspections are included. Focus is placed on acceptance testing for construction materials. Prerequisites: CNST 1306 Lab fee: $2.

CNST 3320. Construction Safety Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course introduces students to OSHA regulations and industry practices related to creating and maintaining safe construction sites. Students will be eligible to sit for the 10-hour OSHA safety certification exam.

CNST 3321. Construction Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides an overview of construction operations and key management skills. This course is intended to emphasize field-based management while also providing an understanding of overall project management concepts including project delivery systems and project team organization. Field based construction practices include contractual documentation preparation, administration and record keeping, jobsite layout and control, facilitation of jobsite meetings, jobsite labor relations, personnel and site safety, subcontractor management, project quality control principles, sustainable practices at the jobsite, project changes and claims, schedule of values and progress payments and field-based project closeout.

CNST 3323. Construction Estimating I. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
This course introduces the student to the process of quantifying the materials, labor and equipment required to develop detailed cost estimates for construction projects of various size and scope. Course work is designed to develop the student’s ability to break down a project into individual work tasks, from the plans and specifications, which can then be quantified and priced. Topics addressed in this course include CSI divisions, plan and specification analysis, material and work break down for quantification and pricing, bid submittals, RFI’s, RFP’s, and RFQ’s. This course is CSI Master-Format driven and will be addressing the full scope of divisions throughout the semester. Lab fee: $2.

CNST 3325. Construction Specification Management. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
This course further expands on the students understanding of construction documents including specifications and drawings. The emphasis of the course is on the CSI (Construction Specification Institute) divisions . The course highlights technical aspects of these divisions of work including installation and commissioning. The course also describes the submittal and quality control processes associated with these specification sections. The lab component of this course will investigate the installation, quality and commissioning of these systems using models, videos or sample material. Lab fee: $2.

CNST 3335. Construction Layout and Site Development. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Introduction to construction site surveying and layout including the ability to understand specifications and drawings typically found in civil drawing sets related to commercial construction or heavy/highway projects. Introduction to and utilization of surveying equipment and its application in construction layout and control including site layout, building layout and utility layout. Includes measurement and recording of distances, angles and elevations. Lab fee: $2.

CNST 3350. Horizontal Construction. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Horizontal Construction will explore construction procedures and equipment options, capabilities, costs, and productivity involved with the construction of roads, bridges, infrastructure and utilities. General estimating and costing will be discussed, as well as characteristics, quality analysis, logistics and procedures required on horizontal construction sites. This course will be structured around CSI divisions as they relate to specific forms of horizontal construction processes.

CNST 3360. Vertical Construction. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Vertical Construction will explore construction procedures and equipment options, capabilities, costs, and productivity involved with the construction of single-family homes, multifamily homes, commercial construction, industrial construction and hybrid construction. General estimating and costing will be discussed, as well as characteristics, quality analysis, logistics and procedures required on vertical construction sites. This course will be structured around CSI divisions as they relate to specific forms of vertical construction processes.

CNST 3385. Construction Project Scheduling. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
This course will provide student with an understanding of planning, scheduling, and monitoring construction projects, including development of schedules using critical path method, program evaluation and review techniques (PERT), Gantt charts, linear scheduling as well as resource allocation, cost control and software applications used to schedule construction projects. The student will learn these techniques using hard skills and software tools to accurately prepare, analyze, and communicate the schedule to all team members. Lab fee: $2.

CNST 4084. Seminar. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 0 Hours).
Topics will vary according to timeliness and special needs. May be taken more than once for credit.

CNST 4086. Problems. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 0 Hours).
This course is designed to meet the needs of Engineering Technology students who have above average academic ability and who need to pursue subject matter that is not normally included in the Engineering Technology curriculum. Approval for enrollment in this course shall be with the concurrence of the individual instructor and the department head. The student must be currently enrolled in one of the majors offered in the Engineering Technology Department.

CNST 4310. Site & Building Foundations. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
The course gives an overview of the difference and correlation between soil mechanics and foundations engineering. Soil mechanics is the branch of engineering that involves the study of the properties of soils and their behaviors under stress and strain in idealized conditions. Foundation engineering is the application of the principles of soil mechanics in the planning, design and construction of foundations for buildings, highways, dams and so forth. This course presents a detailed look into soil properties and foundations design. Prerequisites: PHYS 1401 or PHYS 2425. Lab fee: $2.

CNST 4313. Construction Law and Ethics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course introduces students to basic understanding of contractual issues that are significant to construction managers. The course is designed to teach basic concepts of contract law and to recognize legal issues making decisions based on current industrial standards. The course also focuses on addressing ethics in the construction industry.

CNST 4322. Building Information Modeling. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
This course will provide student with skills and information needed to effectively utilize existing BIM technologies for planning and executing construction projects. This course will help students gain project-based knowledge on executing and managing concept using BIM and VDC (virtual design and construction) technologies for planning, monitoring, and controlling construction project from inception to operation and maintenance. Prerequisites: CNST 3321 Lab fee: $2.

CNST 4323. Construction Estimating II. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
This course applies and expands the student's ability to quantify materials, labor and equipment and develop pricing and estimates according to CSI division standards. Course work is structured to increase the level of complexity in detailed takeoffs, estimates, reporting and presentation. Topics addressed in this course include spreadsheet development, plan and specification analysis, material assembly development and detailed estimate (cost) reporting using computer software. This course is CSI Master-Format driven and will be addressing the full scope of divisions throughout the semester. Prerequisite: CNST 3323 Lab fee: $2.

CNST 4325. Contract Administration. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course introduces students to issues regarding administering construction contracts. It focuses on understanding the purpose of contract documents, legal hierarchy of the documents, the interrelationships among the documents, common construction risks and liabilities and means and methods to mitigate such risks, along with the typical challenges related to communications among the parties involved. The course will primarily use the suite of American Institute of Architect (AIA) contract documents as a model contract. Prerequisites: CNST 3321.

CNST 4358. Construction Project Scheduling. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
This course will provide student with an understanding of planning, scheduling, and monitoring construction projects, including development of schedules using critical path method, program evaluation and review techniques, Gantt charts, linear scheduling as well as resource allocation, cost control and software applications to scheduling. The student will learn these techniques using hard skills and software tools to accurately prepare, analyze, and communicate the schedule to all team members.

CNST 4387. Internship. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An approved, supervised, comprehensive work experience consisting of a minimum of 320 hours (8 weeks) in a construction environment Prerequisite: at least 9 hours of CNST coursework.

CNST 4395. Construction Capstone. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Capstone projects will be administered in one of two formats. Students will either intern with a construction company and conclude their capstone project with a final presentation describing the learning outcomes from their internship or students will perform a desktop project where students will execute a project on paper which shall include a project bid, project schedule and a project plan. Alternatively, the student may be asked to develop research reports on current topical trends facing the construction industry. Prerequisite: Minimum of 90 hours of coursework complete.

Engineering Technology Courses

ENGT 1305. Principles of Drafting. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
An introduction to mechanical drafting involving geometrical constructions, orthographic projection, dimensioning techniques, sectional views, auxiliary views, isometric views, and other topics related to manufacturing and other areas of drafting. Lab fee: $2.

ENGT 1306. Applied Statics. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
This course will focus on understanding the resolution and composition of forces and moments; free-body diagrams; static equilibrium of particles and rigid bodies; simple structures; and friction. Prerequisite: MATH 1316 or 2412.

ENGT 1317. Machining Technology. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
A study of metals and their machining characteristics and applications. Emphasis is placed on layout, precision measurement, and heat treatment. Laboratory experiences include working with sheet metal, metal casting, and metal lathe operation. Lab fee $2.

ENGT 2303. Engineering Economy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Principles of economics equivalence; time value of money, analysis of single and multiple investments; comparison of alternatives; capital recovery and tax implications; certainty; uncertainty; risk analysis; public sector analysis; and break-even concepts. Prerequisite: MATH 1316, MATH 2412, MATH 2413, or MATH 1352.

ENGT 2309. Electrical Circuits. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
Principles of electricity, magnetism, and basic laws. Fundamentals of analog and digital electronic components and circuits, including applied areas. Laboratory involves experiments with basic circuits and test equipment. Lab fee: $2.

ENGT 2310. Introduction to Manufacturing Processes. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
A study of metals and their machining characteristics and application. Emphasis is placed on layout, precision measurement, and heat treating. Laboratory experiences include work with sheet metal, metal casting, and metal lathe operation. Lab fee: $2.

ENGT 2335. Solid Modeling. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
A study of complex three-dimensional solid models used in the fields of mechanical engineering, sheet metal, welding, and other areas of manufacturing and engineering. Orthographic views projected from solid models and annotation techniques are used to produce engineering drawings. Prerequisite: ENGT 1305 or 3 semester hours of drafting or approval of the instructor. Lab fee: $2.

ENGT 3099. Cooperative Education. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 3-9 Hours).
This course is designed to offer students the opportunity to integrate academic study with work experience that is germane to their major or minor. Enrollment requires a two-semester minimum commitment that may be accomplished by 1) alternating semesters of full-time study with semesters of curriculum-related employment, or 2) enrolling in courses at least half-time (6 semester hours) and working part-time in parallel positions of curriculum-related employment. The department Cooperative Education advisor will supervise the student's experience and assign the final grade based on the student's final report which is required to complete the course. Students may participate in the Cooperative Education program for an unlimited number of semesters but a maximum of 6 hours credit may be counted toward a degree. Prerequisites: Completion of 30 semester hours which includes 12 hours in the major or minor discipline in which the Cooperative Education course is desired, minimum overall GPA of 2.5 and a minimum GPA of 3.0 in the appropriate major or minor field, and department head approval. Other fee: $50.

ENGT 3301. Applied Dynamics. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
This course will study the principal concepts and application of dynamics. The topics include kinematics and kinetics analysis of particle motion, kinematics and kinetics analysis of two-dimensional rigid body motion, and principal of work and energy and its application in particle and two-dimensional rigid body motion analysis. Prerequisites: MATH 2413 and ENGT 1306.

ENGT 3303. Industrial Materials. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours). [WI (p. 396)]
A study of the structure, properties, processing, and application of metallic, polymeric, ceramic, and composite materials utilized in manufacturing. Laboratory exercises include processing methods, physical and mechanical testing, modification of properties, manufacturing applications, and material identification. Prerequisites: CHEM 1311,1111 or CHEM 1407 and ENGL 1302 Lab fee: $2.

ENGT 3304. Manufacturing Materials. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
A study of the properties, processing, and application of metallic, polymeric, ceramic, and composite materials utilized in manufacturing. Emphasis is placed on broad characteristics and applications of industrial materials.

ENGT 3305. Machine Design. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
Application of mechanics and strength of materials to the analysis, synthesis and design of machine elements; theories of failure, stress concentrations, fatigue life and thermal stress, consideration of economics and safety; projects in creative mechanical design. Prerequisite: MATH 2413 and ENGT 3313.

ENGT 3309. Control Systems for Mechanical Application. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 0 Hours).
Application of computers to control industrial processes. Study of continuous- and discrete-time control algorithms; digital signal processing; and system control concepts applied to process control. Prerequisite: ENGT 2303.

ENGT 3313. Mechanics of Materials. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
A study of the principles of analysis of materials and structures under loads: stresses and strains in elastic members under tensile, compressive, shear, torsion and bending loads; combined stresses; shear and moment diagrams; deflection of beams; thin-walled pressure vessels; column buckling. Prerequisites: MATH 2413 and ENGT 1306.

ENGT 3314. Principles of Technology Education. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the Texas Technology Education curriculum, to include the areas of communication, manufacturing, construction, energy, power, transportation, computer applications, bio-related technology, electricity, electronics, graphics, principles of technology, and other related technologies.

ENGT 3316. Manufacturing Systems. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
A study of organizational and production techniques used in manufacturing. A thematic team approach will be used to design and produce a product using principles of mass production. Concepts of manufacturing that will be studied will include: principles of tooling, quality, plant layout, resource planning and scheduling. Prerequisites: ENGT 1305, 1317.

ENGT 3317. Machine Tool Technology. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Fundamentals and principles of metal removal processes. Emphasis is placed on metal lathes, milling machines, grinding machines, and electric discharge machines. Prerequisite: ENGT 1317. Lab fee $2.

ENGT 3318. Research and Reporting For Technologists. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
A study of research tools, methods, and data collection techniques used in the field of Engineering Technology. Emphasis will be placed on gathering, analyzing, and presenting technical information related to manufacturing topics in both oral and written form. Technical reports, product documentation, and correspondence will also be discussed.

ENGT 3319. Motor Control and Machine Automation. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
A study of power transformers, single and multiphase circuits. The study of DC machines, AC single and multiphase synchronous and induction machines, and an introduction to power electronics. Lab fee: $2.

ENGT 3320. Industrial Safety. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of principles and practices used to establish a safe and healthful environment for industrial personnel. Includes a study of general industrial safety, safety and health regulation agencies, hazard recognition and correction, and first aid.

ENGT 3323. Computer-Aided Design with AutoCAD. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
The application of the principles of computer-aided design as they relate to manufacturing and construction. Computerized generation of drafting and design data, using AutoCAD, to create two- and three-dimensional geometries.

ENGT 3324. Applied Polymer Processing. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
This course is a study of thermoplastic and thermosetting materials and processes used in plastics manufacturing. Emphasis will be placed on injection molding, thermoforming, extrusion, rotational casting, elastomeric mold fabrication, resin casting, and coatings. Also, the impact of material selection on processing parameters will be stressed. Prerequisite: ENGT 3303. Lab fee: $2.

ENGT 3325. Composites Manufacturing. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
This course includes a study of basic organic-matrix composites manufacturing and assembly processes, especially as these relate to aerospace and construction composite products. Lab exercises will include composite hand layup procedures, composite tool design, pultrusion, and assembly processes for composite products. Prerequisite: ENGT 3303. Lab fee: $2.

ENGT 3326. Ergonomics and Work Methods. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduction to the design of man-machine systems with particular emphasis on the application of ergonomics to the manufacturing workplace and environment. Use of anthropometric data in design; limitations of human performance; effects of environmental stress on work performance, safety, and health. Lab fee: $2.

ENGT 3327. Mechanical Analysis. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
The course works with the principal concepts and application of Finite Element Analysis (FEA). The topics include fundamental stress/strain analysis of linear static systems and comparing with FEM software on lab projects. The topics also include fundamental of mechanical fracture and fatigue analysis and if time permits performing FEM analysis of them using software on lab projects. Prerequisite: ENGT 3313.

ENGT 3336. Industrial Controls. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
The theory and application of Programmable Logic Controllers (PLCs) to the control of pneumatic systems. Ladder logic and input/output devices will be emphasized. Additional topics include number systems, networking, SCADA, and IIoT. Lab fee: $2.

ENGT 3345. Industrial Design. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
An application based course that exposes students to industrial design and provides experience in the varied aspects of the design process, culminating in a final, individual design project. Topics include, but are not limited to: Working drawings, tolerancing, dimensioning, material selection and pricing, sketching and proper design techniques. Prerequisite: ENGT 2335 or approval of the instructor. Lab fee: $2.

ENGT 3350. Numerical Control Systems. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Principles, techniques, and applications of numerically controlled machine tools. Application of the APT system. Laboratory experiences in processing, writing, debugging, and processing the N/C part program. Prerequisite: ENGT 1317 or approval of the instructor. Lab fee $2.

ENGT 3360. Safety Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Occupational safety engineering and management with emphasis on control of hazardous materials, fire prevention, safety considerations in production facility design and maintenance, and operation of effective safety programs.

ENGT 3375. Continuous Improvement. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The role of the manufacturing engineer in continuous improvement projects to improve design and production processes. The student will utilize modern tools and techniques for planning and managing continuous improvement projects, integrating and deploying change programs, data based decision making, and resource management.

ENGT 3385. Fluid Mechanics. 3 Credit Hours (Lecture: 2 Hours, Lab: 3 Hours).
Introduction to fluid mechanics, and topics include fundamental concepts and problem-solving techniques. Topics to be covered include fluid properties, fluid statics, fluid kinematics, control volume analysis, internal flows (pipe flows), and external flows (lift and drag). Introductions to computational fluid dynamics (CFD), compressible flow, and fluid power systems such as turbomachinery (pumps and turbines) will also be provided. Prerequisites: ENGT 1306.

ENGT 3386. Quality Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the application of various methods used by manufacturing to quantify product quality. This will include a review of the ASTM, ANSI, and ISO tests as they apply to metallic, polymeric, ceramic, and composite materials. Statistical Quality Control, Statistical Process Control, Total Quality Management, and ISO 9000 will also be investigated. Laboratory assignments will acquaint the student with the variety of instrumentation that is used in quality control and their use. Lab fee: $2.

ENGT 3393. Modular Technology. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
This course will investigate various systems used in modular technology education. Modular technology studies will include broadcasting technology, applied physics, power energy, transportation, graphic communication, composites, and computer application. Prerequisites: junior standing. Lab fee: $15.

ENGT 3395. Fundamentals of Industrial Project Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
As an introductory course for project management, the course covers essential elements to successfully initiate and complete a project in general. Topics will include five of the basic elements of project management; project initiation, planning, executing, controlling and closing a project.The course includes the use of Project Management software.

ENGT 4086. Problems. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 0 Hours).
This course is designed to meet the needs of Engineering Technology students who have above average academic ability and who need to pursue subject matter that is not normally included in the Engineering Technology curriculum. Approval for enrollment in this course shall be with the concurrence of the individual instructor and the department head. The student must be currently enrolled in one of the majors offered in the Engineering Technology Department. Prerequisite: completion of 30 or more hours in the Department of Engineering Technology.

ENGT 4303. Weld Design. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
This course presents the basics of weld design, welded structure manufacturing, and structural design as it applies to welded structures.

ENGT 4305. Architectural Drafting. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
A course in residential architectural drafting using computer-aided drafting. Emphasis is placed on residential design and home planning. Lab fee: $2.

ENGT 4320. Occupational Safety and Health. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of principles and practices used to establish a safety and health program within industrial and retail environments. The course includes a study of general safety regulations and occupational safety program strategies as they pertain to internal organizational efforts. Related topics such as safety and health regulation agencies, hazard recognition and correction, and first aid.

ENGT 4322. Applied Thermodynamics. 3 Credit Hours (Lecture: 2 Hours, Lab: 3 Hours).
The study of the basic concepts and laws of thermodynamics and the application of these laws or principles to simple engineering systems. Topics include the First Law of Thermodynamics, the Second Law of Thermodynamics, thermodynamic properties, and various cycles. Prerequisite: MATH 2414, ENGT 3301, and ENGT 3385.

ENGT 4324. Statistics for Engineering Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduction to decision making using quantitative methods. In addition to exploratory data analysis, basic probability, distribution theory, and statistical inference will be covered. Special topics will include experimental design, regression, control charts, and acceptance sampling. Prerequisite: MATH 3311.

ENGT 4326. Applications of Linear Programming and Optimization. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
An introduction to applications of linear and nonlinear programming, single and multiple objective optimization, sensitivity, forecasting, queuing theory, and decision analysis. The student will be able to implement these concepts using a COTS software application as applied in industrial and public settings. Lab fee $2.

ENGT 4336. Production Planning. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the principles and theory used in the design and maintenance of production operations and inventory systems. These include forecasting techniques, inventory models, production control models and assembly line balancing. Particular emphasis is on MRP. Just-in-Time, and Synchronous Manufacturing.

ENGT 4339. Process Control Instrumentation. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
Introduction to process control principles and practices. Study of analog and digital signal conditioning; thermal, mechanical and optical transducers; electromechanical, pneumatic and hydraulic devices; and the application of computer-aided tools for process control instrumentation. Prerequisite: ENGT 3336, 3309. Lab fee: $2.

ENGT 4346. Manufacturing Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Applications of modern manufacturing principles including: design for manufacturability, group technology, just-in-time, synchronous manufacturing, concurrent engineering, flexible manufacturing, and product management to effectively manage the manufacturing environment.

ENGT 4347. Metrics and Measurements. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course covers topics in ergonomics, the man-machine interface, managing worker methods, and time studies. We will cover topics that lead to measuring and monitoring work both by human and machines. Prerequisite: ENGT 3375.

ENGT 4350. Numerical Control Programming. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
A continuation of ENGT 3350 in which more advanced programming techniques are studied. Included is a study of the various N/C part programming languages, an evaluation of N/C equipment, and the further refinement of the NC language. Prerequisite: ENGT 3350. Lab fee $2.

ENGT 4356. Advanced Industrial Controls. 3 Credit Hours (Lecture: 2 Hours, Lab: 3 Hours).
The application of circuits, sensors, and programming to autonomous systems controlled via an on-board microprocessor. Prerequisite: MATH 2413, ENGT 3336.

ENGT 4360. Hazardous Waste Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introduction to defining, identifying, and managing solid and hazardous waste materials. Examination of policy issues associated with solid waste and hazardous materials to meet RCRA and CERCLA regulations. Prerequisites: Junior standing.

ENGT 4361. Computer Aided Manufacturing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The principles of computer aided manufacturing and simulation as they relate to mechanical design and assemblies. Software tools will be used to analyze parametric parts and assemblies for strength, function, range of motion and interference. Prerequisite: Approval of the instructor.

ENGT 4362. Supply Chain Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Exploration of the key drivers associated with the design and management of industrial supply chains. The course will focus in covering high level supply chain strategy and concepts, and the use of analytical tools to solve supply chain problem. Specific content will include strategy, supply chain metrics and drivers, network design, forecasting, sales and operations planning, supply chain uncertainty, inventory, sourcing and sustainability and technology. Course helps prepare students for the APICS Certified Supply Chain Professional certification exam.

ENGT 4375. Facility Planning. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course covers topics in Facilities Planning and design for Operations. We will cover topics that lead to making good decisions for facility layout including product, process flow, material handling, and facility location techniques. Prerequisite: ENGT 3375.

ENGT 4376. Automated Manufacturing Systems. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An analysis of materials flows to design automated manufacturing systems in the manufacturing environment. This will include material handling systems, how computer-aided manufacturing software improves productivity, automated storage and retrieval systems, automated guided vehicles, bar-coding systems, automated warehousing, and the programming and application of robots.

ENGT 4384. Internship. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An approved, supervised, comprehensive work experience consisting of a minimum of 240 hours (6 weeks) in an industrial or manufacturing enterprise. Prerequisite Course(s): Junior or senior classification and approval of academic advisor and department head. The internship may be repeated for a maximum of 6 hours of credit.

ENGT 4385. Seminar. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Topics will vary according to timeliness and special needs. May be taken more than once for credit.

ENGT 4395. Engineering Technology Projects. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
A capstone projects course emphasizing a team approach to the analysis and solutions of manufacturing problems. Projects will be supplied by industry whenever possible. Emphasizes scheduling, design, working in teams, final written report and presentation. Restricted to Engineering Technology majors. Lab fee $2.

Industrial Distribution Courses

IDIS 2302. Fluid Power. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
The study of the theory and application of pneumatic and hydraulic systems in industrial manufacturing processes. Specific topics include interpreting and drawing fluid circuits based on a standard symbol set; theory, namely the energy equation; components and component sizing; pros and cons of hydraulics and pneumatics, and in comparison to electrical systems; how such systems may be controlled at the subsystem level; and how such systems may be integrated into a larger or overall manufacturing process. Lab fee: $2.

IDIS 2304. Mechanical Power. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Covers principles of power transmission and motion control. The course includes current design innovations in components, systems, and manufacturing along with industry news and events. Lab fee: $2.

IDIS 2305. Engineering Drawings and Documentation. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Students learn to interpret paper and electronic engineering drawings and datasets. Drawings and solid models are analyzed via computer aided design system(s). Students inspect parts to specified tolerances. Product data management systems, specifications and standards, and production planning documents are explored. Students learn to compile bid packages.

IDIS 2306. Basic Electronics. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
An introduction to basic electronics with an overview of computer components, digital systems using counters, registers, code converters, multiplexers, analog-to-digital-to-analog circuits, and large-scale integrated circuits. Lab fee: $2.

IDIS 3300. Basic Electricity. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Principles of electricity, magnetism, and basic laws. Fundamentals of analog and digital electronic components and circuits, including applied areas. Laboratory involves experiments with basic circuits and test equipment. Lab fee: $2.

IDIS 3302. Introduction to Industrial Distribution. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
As an introductory course to industrial distribution, this 2 credit hour course provides definitions and a history of industrial distribution, the types and range of products, lines of distribution, the function of manufacturers, distributors, and operations managers along with measures of effectiveness, and opportunities for employment and advancement.

IDIS 3330. Technical Sales. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Sales and sales management techniques for analyzing distribution challenges and providing solutions through effective communication; establishing credibility, effective questioning techniques, developing solutions, presenting solutions, anticipating objections and gaining a commitment, plus techniques for building, developing and compensating an effective sales organization.

IDIS 3343. Logistics, Transportation, and Distribution. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course logistics network design, capacity planning and demand management, inventory and warehouse management, transportation systems. global logistics considerations, reverse logistics and sustainability. Upon completion of the course students will be prepared to pass the APICS CLTD exam.

IDIS 3344. Supply Chain Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Four credit course. A study of purchasing fundamentals performed by personnel who have the responsibility for procurement of materials, equipment, and/or services in a wholesale distribution environment. Upon completion of this course, students will be prepared to pass the APICS CPIM Part 1 and 2 exams.

IDIS 4334. Quality for Industrial Distribution. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduction to decision making for industrial distribution using quantitative methods. The emphasis will be on identifying opportunities for process/product improvement in manufacturing using statistical applications. Besides exploratory data analysis, basic probability, distribution theory and statistical inference will be covered. Special topics will include experimental design, regression, control charts and acceptance sampling. Prerequisite: MATH 1342 or BUSI 2305.

IDIS 4350. Strategic Planning and Data Analysis. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides an overview of strategic planning and data analysis techniques and applies tools learned to industrial distribution scenarios. Prerequisites: BUSI 2305 or MATH 1342 and IDIS 4334.

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The department of Mechanical, Environmental, and Civil Engineering (MECE) offers bachelor's degrees in Civil Engineering, Environmental Engineering, Mechanical Engineering, and a master's degree in Mechanical Engineering. MECE majors engage in hands-on applications of discipline-related concepts and tools, taught in an engaging, student-centered, academic success-focused environment. Our department houses state-of-the-art instructional and research equipment including industry-standard software, 3D printing, automation and robotics, hydraulic flume, 145 mph wind tunnel, jet engine, centrifugal pumps, and a 100 kN universal testing machine. Students gain practical experience with these tools throughout the curriculum and also have the opportunity to conduct undergraduate research with our faculty. A degree from the MECE department opens doors to challenging and rewarding, high-salaried, high-tech engineering careers.

Departmental Course Prerequisite Policy

It is important for students to stay academically prepared as they progress through their curriculum. Prerequisite (taken previously) and corequisite (taken previously or concurrently) courses are in place to establish the foundational knowledge and skills needed to be successful in any given course. For all programs in the MECE department, students must earn a grade of “C” or better in all required Engineering, Mathematics and Science coursework to graduate, as well as to proceed to follow-up courses. The following summarizes the policy for allowing/disallowing forward progress when prerequisite (prereq) and/or corequisite (coreq) conditions are not fully met:

- If a student earns an F in a prereq course or has not taken that prereq, the student may NOT enroll in the follow-up course.
- If a student earns a D in a prereq for a course, the student IS allowed a prereq waiver to enroll in the follow-up course only if ALL THREE of the following conditions are met:
  - The student has an overall GPA of 2.2 or higher, AND
  - If by not enrolling in the follow-up course, the student’s graduation date is adversely impacted (advisor must check the cascading effect of not enrolling in a course), AND
  - The student has not exceeded the max of FOUR prereq waivers.

If a student qualifies for a prereq waiver, the student must re-enroll in the prereq course concurrently; if the prereq course is not offered concurrently, the student must re-enroll on its immediate next offering. A student may utilize a maximum of FOUR prerequisite waivers over the duration of their pursuit of a degree within the MECE Department. Changing majors within the department does not reset the waiver count.

The department also allows a maximum of TWO engineering courses in a curriculum that can be taken as a transient (temporary) student at another university. Consult the department website, office or an advisor for additional information on these policies.

Bachelor of Science in Civil Engineering

The Civil Engineering (CVEN) program at Tarleton State University was launched in Fall 2014. The program is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org (https://nam11.safelinks.protection.outlook.com/?url=http%3A%2F%2Fwww.abet.org%2F&data=04%7C01%7CAGAPIE%40tarleton.edu%7C8440dc5d24a14b88d3fc08d8df135a6c%7C2c5ee638a96349c0ac26828dd9b78d5e%7C0%7C0%7C637504621495074894%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C1000&sdata=miktx%2FeS9ehBn5vwhOh4z7yZLggSW0HQKkznVvAYFDg%3D&reserved=0). The mission of the CVEN program is to prepare the students to work competently as a professional engineer in Civil Engineering related industries and consulting firms, for engineering licensure and for graduate studies through a rigorous curriculum utilizing modern analytical tools, hands-on laboratory experiences and field applications. The program includes the following broad fields of specialization: structural engineering, transportation engineering, construction engineering, hydrology and water resources engineering, geotechnical engineering, materials, and mechanics. Throughout the program, students develop their ability to communicate effectively in a team-oriented and project-driven environment. Additional studies in ethics and sustainability design develop students’ ability to understand the responsibilities to public safety and to protect the environment as civil engineers.

The mission of the CVEN program aligns with the mission of the Mayfield College of Engineering (https://www.tarleton.edu/engineering/), as well as the mission of Tarleton State University (p. 5).

Students must earn a grade of “C” or better in all required Engineering, Mathematics and Science coursework to graduate. Students must also take, or be registered to take, the Fundamentals of Engineering (FE) licensure exam to graduate.

General Education Requirements (p. 396)		42
ENGR 1211	Engineering Fundamentals I	2
ENVE 2251	Fundamentals of GIS for Engineers	2
ENGR 2321	Engineering Mechanics: Statics	3
ENGR 2324	Engineering Mechanics: Dynamics	3
ENGR 3311	Engineering Mathematical Methods	3
ENGR 4258	Engineering Professionalism	2
ENGR 4380 [WI (p. 396)]	Engineering Capstone	3
CVEN 2200	Surveying	2
CVEN 2312	Intro to Civil Engineering	3
CVEN 2235	Civil Engineering Graphics	2
CVEN 3301	Structural Analysis	3
CVEN 3320	Construction Planning and Management	3
CVEN 3245	Civil Engineering Lab I	2
CVEN 3346	Civil Engineering Lab II	3

CVEN 3323	Strength of Materials	3
CVEN 3123	Strength of Materials lab	1
CVEN 4305	Reinforced Concrete Design	3
CVEN 4306	Steel Design	3
CVEN 4325	Foundation Engineering	3
CVEN 4450 [WI (p. 396)]	Transportation Engineering	4
CVEN 4360	Highway Planning and Design	3
ENVE 2311	Soil Mechanics	3
ENVE 3300	Fluid Mechanics	3
ENVE 3310 [WI (p. 396)]	Engineering Hydrology	3
ENVE 4310 [WI (p. 396)]	Water Resources Engineering	3
Additional Basic Science Elective [shared]:		
GEOL 1403 [shared]	Physical Geology	
or BIOL 1406	Biology for Science Majors	
CHEM 1409	College Chemistry for Engineers	4
PHYS 2425 [shared]	University Physics I	
ENGR 4084	Professional Practice [1]	3
or PHYS 2426	University Physics II	
Placement is required for Calculus 1.		
MATH 2413 [shared]	Calculus I	
MATH 2414	Calculus II	4
MATH 3433	Calculus III	4
MATH 3306	Differential Equations	3
Total Hours		**128**

Bachelor of Science in Environmental Engineering

The Environmental Engineering program at Tarleton State University is accredited by the Engineering Accreditation Commission of ABET, www.abet.org. The mission of the Environmental Engineering program is to prepare graduates for employment as engineer in Environmental Engineering related industries and consulting firms, for engineering licensure, and for graduate studies in Environmental Engineering, Civil Engineering or related disciplines. This is accomplished through a curriculum supported by hands-on laboratory and field experiences in which students develop their ability to synthesize concepts into solutions, use modern analytical tools and techniques, communicate professionally and work in a team environment. The program includes a breadth of topics including water and wastewater treatment, environmental risk assessment, solid and hazardous waste management, remediation engineering, and project management. Additional studies in ethics and policy assure that the graduate understands the special responsibilities of an engineer related to public safety and environmental issues. This results in engineering graduates who strive to advance the engineering profession through technical competence, innovative problems solving and design, professional conduct, and lifelong learning. Additional details can be found on the department website: https://www.tarleton.edu/mece/.

Students must earn a grade of "C" or better in all Engineering, Mathematics, and Science coursework in order to graduate. Students must also take, or be registered to take, the Fundamentals of Engineering (FE) licensure exam in order to graduate.

General Education Requirements (p. 396)		42
ENGR 1211	Engineering Fundamentals I	2
ENGR 2322	Engineering Thermodynamics I	3
ENGR 3311	Engineering Mathematical Methods	3
ENGR 4258	Engineering Professionalism	2
ENGR 4380 [WI (p. 396)]	Engineering Capstone	3
CVEN 2235	Civil Engineering Graphics	2
ENVE 2251	Fundamentals of GIS for Engineers	2
ENVE 2310	Introduction to Environmental Engineering	3
ENGR 2321	Engineering Mechanics: Statics	3
ENVE 3300	Fluid Mechanics	3
ENVE 3301	Environmental Systems Modeling	3
ENVE 3310 [WI (p. 396)]	Engineering Hydrology	3
ENVE 3333	Groundwater Contamination and Remediation	3
ENVE 3340	Environmental Risk Assessment	3
ENVE 3350	Environmental Biotechnology	3
ENVE 4302	Atmospheric Systems and Air Pollution Control	3
ENVE 4310 [WI (p. 396)]	Water Resources Engineering	3
ENVE 4320	Chemical and Biological Processes in Water and Wastewater Treatment	3
ENVE 4319	Physical Operations in Water and Wastewater Treatment	3
ENVE 4350	Solid and Hazardous Waste Management	3
ENVE 4220	Environmental Lab	2
ENVE 4225	Environmental Monitoring and Measurements	2
Placement is required for MATH 2413		
MATH 2413 [shared]	Calculus I	
MATH 2414	Calculus II	4
MATH 3433	Calculus III	4
MATH 3306	Differential Equations	3
CHEM 1409	College Chemistry for Engineers	4
CHEM 2323	Organic Chemistry I	3
CHEM 2123	Organic Chemistry I Laboratory	1
GEOL 1403 [shared]	Physical Geology	

Biological Science Elective		4
BIOL 4441	Freshwater Biology	
or BIOL 4401	Ecology	
PHYS 2425 [shared]	University Physics I	
ENGR 4084	Professional Practice [1]	3
or PHYS 2426	University Physics II	
Total Hours		**128**

Bachelor of Science in Mechanical Engineering

The Mechanical Engineering program at Tarleton State University was approved in January 2017 and is accredited by the Engineering Accreditation Commission of ABET, www.abet.org (https://nam11.safelinks.protection.outlook.com/?url=http%3A%2F%2Fwww.abet.org%2F&data=04%7C01%7CAGAPIE%40tarleton.edu%7C289384552c6a4c6752b508d8ddd75623%7C2c5ee638a96349c0ac26828dd9b78d5e%7C0%7C0%7C637503264299483035%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C1000&sdata=KFAsFpXWRIlFQN9DLSy4cS8yE628z1ipn739UWlXVTs%3D&reserved=0). The mission of the Mechanical Engineering program is to prepare graduates for employment as an engineer in a breadth of Mechanical Engineering-related industries, for engineering licensure, and for graduate studies in Mechanical Engineering or related discipline. This is accomplished through a curriculum supported by hands-on laboratory and prototyping experiences in which students develop their ability to synthesize concepts into solutions, use modern analytical tools and techniques, communicate professionally and work in a team environment. The program includes topics such as thermal-fluid system design, mechanical system design, mechatronics, and alternative energy systems. Additional studies in ethics develop students' ability to understand the engineer's responsibilities to society. This results in engineering graduates who strive to advance the engineering profession through technical competence, innovative problems solving and design, professional conduct, and lifelong learning. Additional details can be found on the department website: https://www.tarleton.edu/mece/.

Students must earn a grade of "C" or better in all Engineering, Mathematics, and Science coursework in order to graduate. Students must also take, or be registered to take, the Fundamentals of Engineering (FE) licensure exam in order to graduate.

General Education Requirements (p. 396)		42
ENGR 1211	Engineering Fundamentals I	2
ENGR 2321	Engineering Mechanics: Statics	3
MEEN 2212	Programming for Engineers	2
ENGR 2322	Engineering Thermodynamics I	3
ENGR 2324	Engineering Mechanics: Dynamics	3
ENGR 3311	Engineering Mathematical Methods	3
ENGR 4259	Engineering Capstone I	2
ENGR 4360 [WI (p. 396)]	Engineering Capstone II	3
ELEN 2425	Electrical Circuit Theory	4
MEEN 3310	Materials and Manufacturing Processes in Design	3
MEEN 3110	Materials and Manufacturing Processes in Design Lab	1
MEEN 3305	Fluid Mechanics	3
CVEN 3323	Strength of Materials	3
CVEN 3123	Strength of Materials lab	1
MEEN 2210	Engineering Computer Aided Design	2
MEEN 3325	Engineering Thermodynamics II	3
MEEN 3335	Mechanical Vibration	3
MEEN 3345	Heat Transfer	3
MEEN 4205	Mechanical Engineering Experimental Lab	2
MEEN 4300 [WI (p. 396)]	Renewable Energy Systems and Applications	3
MEEN 4310	Mechanical Engineering Design I	3
MEEN 4325	Mechatronics	3
MEEN 4443	Linear Control Systems	4
CHEM 1409	College Chemistry for Engineers	4
PHYS 2425 [shared]	University Physics I	
PHYS 2426 [shared]	University Physics II	
Placement is required for Calculus 1.		
MATH 2413 [shared]	Calculus I	
MATH 2414	Calculus II	4
MATH 3433	Calculus III	4
MATH 3306	Differential Equations	3
Total Hours		**119**

Professor

- Dr. Kartik Venkataraman

Associate professors

- Dr. Jun Xu
- Dr. Lynal Albert
- Dr. Rajesh Vuddandam
- Dr. Hoe-Gil Lee
- Dr. Abolghassem Zabihollah
- Dr. Anne Nichols

Assistant professors

- Dr. Hongbo Du
- Dr. Alexandru Herescu
- Dr. Shihao Huang

Lecturer

- Ms. Hyedi Viehmann

Instructor

- Mr. Brett Rice

Adjunct Instructors

- Dr. Carlos Silva-Hernandez
- Dr. Michael Weeks

Aerospace Engineering Courses

AERO 4320. Aerospace Propulsion. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to teach the principles and practice of aircraft propulsion. Overall performance characteristics of propellers, ramjets, turbojets, turbofans, rockets. The aerospace propulsion course is focused on each type of propulsion system commonly used in aerospace vehicles: rockets, piston aero engines, gas turbine engines, ramjets and scramjets. Prerequisite: MEEN 3325.

AERO 4330. Design of Aerospace Systems. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course describes the fundamental concepts of airplanes and space vehicles as aerospace systems. Elements of aerodynamics, airfoils and wings. Airplane performance, stability and control. Aircraft and rocket propulsion. Fundamentals of orbital motion. Aspects of vehicle conceptual design. Prerequisite: CVEN 3323.

AERO 4340. Mechanics of Composite Materials. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to teach the principles and practice of aircraft composite materials and applications, including micro- and macro-mechanics, thermo-mechanical analysis, and failure theories for composite materials. It also covers the design and analysis of composite structural elements. The major goal of this course is to provide students with an introduction to the theory, design and applications of advanced fiber-reinforced composite materials understanding bending, buckling and vibration of laminated plates. Prerequisite: CVEN 3323, MEEN 3310.

Automotive Engineering Courses

AUTO 3340. Automotive Electronics Integration. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course introduces automotive engineering from a systems perspective, covering major automotive systems and their subsystems with relevant engineering models. The course includes fundamental electrical principles, semiconductor and integrated circuits, digital fundamentals, microcomputer systems, and electrical test equipment. These topics are explored in the context of their application to automotive technology. The course also reviews automotive electronic systems, automotive sensors, automotive actuators, automotive batteries and buses, automotive controllers, automotive sensing signal processing technologies, and automotive control technologies. Special attention is given to engine sensors, along with the methodologies for their analysis. Prerequisite: ELEN 2425, ENGR 2324.

AUTO 4320. Automotive Power Transmission Systems. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides the fundamentals on the structure, functions, analysis, and design of vehicle powertrain systems and various components of vehicle layouts. The course is designed to teach the transmission system of an automotive vehicle, which is the key to the dynamic performance, drivability and comfort, and fuel economy. For electric vehicles, the course provides an introductory subject in the field of electric power systems and electrical to mechanical energy conversion. Prerequisite: MEEN 3335, CVEN 3323.

AUTO 4330. Automotive Engineering Design. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This is an introductory course in vehicle design with concentrating on power generation and vehicle dynamics. It examines the effects of the main components of a vehicle; engine, suspension system, steering, chassis, brakes, and tires. Existing commercial software and automotive standards will be examined to provide students with a practical sense of design in automotive engineering. Prerequisite: CVEN 3323.

Civil Engineering Courses

CVEN 2200. Surveying. 2 Credit Hours (Lecture: 1 Hour, Lab: 3 Hours).
Introduction to the principles of measurements of distances, angles, and elevations; use of modern surveying equipment, area calculations, effects of observation errors; topographic mapping, traverse and area computations, and triangulation. Lab fee: $2.

CVEN 2235. Civil Engineering Graphics. 2 Credit Hours (Lecture: 1 Hour, Lab: 3 Hours).
Introduction to technical drawing applied to civil engineering; design and drawing of various reinforced concrete structure members and connections; use of computer graphic tools, such as AUTOCAD for drawing geometric construction, isometric projection, sectional view, dimensioning, multi-view projections and plans. Lab fee: $2.

CVEN 2312. Intro to Civil Engineering. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduction to the disciplines of civil engineering practice through understanding of various sub-specializations within civil engineering discipline such as geotechnical, structural, transportation, water resources and environmental engineering; sustainable design approaches to civil engineering projects through critical thinking and environmental stewardship; and professional and ethical obligations of civil engineering profession. Prerequisite: ENGR 1211.

CVEN 3123. Strength of Materials lab. 1 Credit Hour (Lecture: 0 Hours, Lab: 3 Hours).
Application of theory of strength of materials by conducting laboratory experiments. Students will conduct series of experiments to measure the properties of materials such as young's modulus and poison's ratio, tensile strength, compressive strength, torsional shear stress, as well as compute stress concentration factors, principal stresses and strains, and deformation using deflection equations. Prerequisite: ENGR 2321; CVEN 3323 or concurrent registration Lab fee: $2.

CVEN 3245. Civil Engineering Lab I. 2 Credit Hours (Lecture: 1 Hour, Lab: 3 Hours).
This course covers topics on the design of experiments with a focus on the mechanical and physical properties of construction materials. It includes experiments and demonstrations of basic concepts of fluid mechanics using a fluid circuit system and flume. Topics encompass the measurement of hydraulic pressure, strains using mechanical gauges and electrical resistance strain gauges, sieve analysis of aggregates, and concrete mix design & asphalt mix design. The course further includes experiments on metals, aggregates, Portland cement, concrete, asphalt, asphalt mixtures, and wood. Prerequisite: CVEN 2312 or concurrent registration Lab Fee: $2.

CVEN 3301. Structural Analysis. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduction to the basic principles of structural analysis; various methods of analyses for beams, trusses, rigid frames, as well as statically indeterminate beams and trusses. Prerequisite: ENGR 2321.

CVEN 3320. Construction Planning and Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Importance of construction planning and management from awarding contract to completion; construction equipment and management techniques; scheduling, and control techniques in civil engineering; scheduling, progress monitoring, and recovery schedules, and use of tools for schedule optimization. Prerequisite: CVEN 2312.

CVEN 3323. Strength of Materials. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Basic concepts of the theory of strength of materials to engineering design and analysis. Topics include stresses and strains in members subjected to tension, compression, torsion, and shear; flexural and shearing stresses in beams, principal stresses and deflection of beams, column analysis. Prerequisite: ENGR 2321.

CVEN 3325. Contracts and Construction Engineering. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Legal aspect of construction industry, ownership, and contractor; contracts and contracting procedure; drawing and specifications used in contract, cost estimation and bidding; contract surety bonds, construction insurance; construction project management and administration; effective project time management; project cost management; prevailing labor market, labor laws, and labor relations; ethics and project safety aspect of construction engineering. Prerequisites: ENGL 1302; CVEN 2310; CVEN 2325.

CVEN 3346. Civil Engineering Lab II. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
This course introduces the cutting-edge realm of civil engineering software. The course topics include modules on using software such as AutoCAD and Autodesk Civil 3D for stormwater plan and corridor design, Autodesk Revit for Building Information Modeling (BIM), Robot Structural Analysis for the analysis and design of reinforced concrete and steel structural elements, Plaxis for foundation design, and pavement design software. Prerequisite: CVEN 2312.

CVEN 3423. Strength of Materials. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
Application of the theory of strength of materials to engineering design and analysis. Topics include stresses and strains in members subjected to tension, compression, torsion, and shear; flexural and shearing stresses in beams, principal stresses and deflection of beams, column analysis. Prerequisite:ENGR 2321 Lab fee: $2.

CVEN 3430. Civil Engineering Materials. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
Introductions to materials engineering; general properties and behavior of construction materials used in civil engineering particularly their mechanical and non-mechanical properties of cement, aggregate, concrete, metals, steel, aluminum, plastics, wood, and composites; environmental influences and construction material behavior; laboratory evaluation of civil engineering material properties through experiments; standard specifications for material properties, techniques for testing. Prerequisite: CVEN 2312 or concurrent enrollment Lab fee: $2.

CVEN 4086. Special Problems. 1-4 Credit Hours (Lecture: 1-4 Hours, Lab: 1-4 Hours).
Directed study of selected topics in Civil Engineering. May be repeated with approval of department head.

CVEN 4305. Reinforced Concrete Design. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Flexural analysis and design of reinforced concrete beams including singly and doubly reinforced rectangular beams and T-beams, shear and diagonal tension, serviceability, bond, anchorage and development length, short and slender columns, slabs, footings, and retaining walls, including computer software and a design project. Prerequisite: CVEN 3323.

CVEN 4306. Steel Design. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Fundamentals of analysis and design of steel structures; structural elements; simple and eccentric connections; includes a design project. Prerequisite: CVEN 3323.

CVEN 4325. Foundation Engineering. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Focuses on geotechnical design of shallow foundations, including spread footings, mats, driven piles, and drilled piers; coverage of bearing capacity, settlement, group effects, lateral load capacity of various foundation types; subsurface exploration, construction of deep foundations and analysis of pile behavior using wave equation and dynamic monitoring methods. Prerequisites: CVEN 2312 and ENVE 2311.

CVEN 4360. Highway Planning and Design. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course aims to help students understand the basic principles and techniques in highway planning and design. It includes highway planning process, design of the alignment of intersections, evaluation of earthwork requirements, and safety consideration. Upon completion students should be able to perform basic highway design. The course also covers the topics in highway design in the FE exam. Prerequisite: ENGR 3311.

CVEN 4450. Transportation Engineering. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours). [WI (p. 396)]
Introduction to highway engineering and traffic analysis; geometric design of highways, traffic flow and queuing theory, highway capacity and level of service analysis, traffic control and analysis at intersections, travel demand and traffic forecasting. Prerequisite: CVEN 2312 or concurrent enrollment Lab fee: $2.

Engineering Courses

ENGR 1211. Engineering Fundamentals I. 2 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Introduction to engineering fundamentals, including problem solving methods and concepts, algorithm development, and analysis tools, including spreadsheets. Introduction to engineering as a profession, including ethics, team-based design, technical communication, and career paths. Prerequisite: Corequisite: MATH 1316 or 2412 or 2413. Lab fee: $2.

ENGR 2105. Electrical Circuits I. 1 Credit Hour (Lecture: 0 Hours, Lab: 1 Hour).

ENGR 2106. Introduction to Digital Systems. 1 Credit Hour (Lecture: 0 Hours, Lab: 1 Hour).

ENGR 2251. Fundamentals of GIS for Engineers. 2 Credit Hours (Lecture: 1 Hour, Lab: 3 Hours).
This course offers an introduction to methods of managing and processing geographic information. Basic principles of geographic information systems and their use in spatial analysis and information management are introduced. Students gain experience with cutting-edge geospatial technologies and an understanding of their capabilities. Application in engineering is emphasized. Prerequisite: MATH 2413 or concurrent registration Lab fee: $2.

ENGR 2303. Engineering Economy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Principles of economics equivalence; time value of money, analysis of single and multiple investments; comparison of alternatives; capital recovery and tax implications; certainty; uncertainty; risk analysis; public sector analysis; and break-even concepts. Prerequisites: MATH 1316, MATH 2412, MATH 2413, or MATH 1352.

ENGR 2305. Electrical Circuits I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

ENGR 2306. Introduction to Digital Systems. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

ENGR 2321. Engineering Mechanics: Statics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Theory and analysis of bodies in equilibrium, including vector algebra, Newtonian mechanics, forces due to friction; forces acting on members of trusses and frame structures, and determinations of centroids and moments of inertia. Prerequisites: Either ENGR 1211, and concurrent enrollment in PHYS 2425 and MATH 2414; or PHYS 2425, and concurrent enrollment in ENGR 1211 and MATH 2414.

ENGR 2322. Engineering Thermodynamics I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Theory and application of energy methods in engineering; conservation principles to investigate traditional thermodynamics (e.g., temperature, thermodynamic equilibrium, and heat). Prerequisite: ENGR 1211; MATH 2414 or concurrent registration.

ENGR 2324. Engineering Mechanics: Dynamics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Application of theory and principles of mechanics to dynamic particles and rigid body systems in rectilinear and curvilinear systems, including forces, acceleration, conservation of energy, and impulse and momentum. Prerequisite: ENGR 2321.

ENGR 2405. Electrical Circuits I. 4 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).

ENGR 2406. Introduction to Digital Systems. 4 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).

ENGR 3311. Engineering Mathematical Methods. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course presents mathematical techniques frequently encountered in advanced engineering analyses. The topics include the following areas: linear algebra, including matrix and eigenvalue applications; probability and statistics, including descriptive and inferential statistics, probability densities, statistical simulations and quality control. Prerequisites: MATH 2413 and ENGR 1211.

ENGR 4084. Professional Practice. 1-3 Credit Hours (Lecture: 0 Hours, Lab: 1-3 Hours).
Internships and cooperative education; students work individually in a professional organization (business, technical, or government) under the supervision, monitoring, and mentorship of a licensed professional engineer or EIT (engineering in training), performing tasks and duties directly related to the environmental and civil engineering disciplines; A minimum of 80 hours per credit earned is required. Oral and written reports of internship experience are required. This course may be offered pass/fail. No more than 3 credits may count towards the ENVE-BS and CVEN-BS program. Internship performance evaluation report completed by the supervisor at the end of the internship is required. Prerequisite: CVEN 2312 or ENVE 2310 Lab Fee: $2.

ENGR 4086. Special Problems. 1-4 Credit Hours (Lecture: 1-4 Hours, Lab: 1-4 Hours).
Directed study of selected topics in Engineering. May be repeated with approval of department head.

ENGR 4258. Engineering Professionalism. 2 Credit Hours (Lecture: 2 Hours, Lab: 0 Hours).
This course covers knowledge, skills and values necessary in engineering professional practice. Includes FE review sessions, engineering ethics, design process including multiple realistic constraints such as social, economic, safety, and sustainability, and the impact of engineering solutions in a global, economic, environmental, and societal context. Prerequisite: Within one year of graduation as per departmental capstone policy.

ENGR 4259. Engineering Capstone I. 2 Credit Hours (Lecture: 2 Hours, Lab: 0 Hours).
This course is the first part of the capstone design experience synthesizing knowledge, skills and values necessary in engineering practice. Includes FE review sessions, engineering ethics, design process including multiple realistic constraints such as social, economic, safety, and sustainability, and the impact of engineering solutions in a global, economic, environmental, and societal context. During this course students develop a proposal for their capstone project. Prerequisites: Within one year of graduation and subject to instructor approval as per departmental capstone policy.

ENGR 4360. Engineering Capstone II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This course is part 2 of the culminating design experience in the last year of the curriculum used to integrate the student's education. Includes reference to business concepts, mathematics, science, engineering and humanities. Emphasizes team work, a holistic approach to problem solving, and incorporates appropriate engineering standards and multiple realistic constraints. Prerequisite: ENGR 4259.

ENGR 4380. Engineering Capstone. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This course covers the culminating design experience in the last year of the curriculum used to integrate the student's education. Includes reference to business concepts, mathematics, science, engineering and humanities. Emphasizes team work, a holistic approach to problem solving, and incorporates appropriate engineering standards and multiple realistic constraints. Prerequisite: Within one year of graduation and subject to instructor approval as per departmental capstone policy.

Environmental Engineering Courses

ENVE 2251. Fundamentals of GIS for Engineers. 2 Credit Hours (Lecture: 1 Hour, Lab: 3 Hours).
This course offers an introduction to methods of managing and processing geographic information. Basic principles of geographic information systems and their use in spatial analysis and information management are introduced. Students gain experience with cutting-edge geospatial technologies and an understanding of their capabilities. Application in engineering is emphasized. Lab fee: $2.

ENVE 2310. Introduction to Environmental Engineering. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduction to environmental and occupational health, atmospheric systems and air pollution control, hazardous waste management, solid waste management, waste water management, and water supply treatment. Prerequisites: CHEM 1409 or CHEM 1312 and 1112.

ENVE 2311. Soil Mechanics. 3 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
Introduction to the principles of soil and their influence on the hydrological cycle, Darcy's law and fluid flow through porous medium, stress distribution and consolidation of soil, subsurface exploration. Prerequisite: MATH 2413; PHYS 2425 or concurrent enrollment Lab fee: $2.

ENVE 3300. Fluid Mechanics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Principles of hydrostatics, dynamics of viscous and inviscid non-viscous fluids, resistance to flow in pipes and open channels, transport processes, energy equation, Bernoulli equation, conservation of mass, conservation of momentum, pump characteristics, similitude, dimensional analysis. Includes an introduction to computational analysis of fluid flow and pressure distributions and laboratory experiences. Prerequisites: PHYS 2425 and MATH 2414.

ENVE 3301. Environmental Systems Modeling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Apply conceptual and numerical techniques to model environmental systems. Use differential equations to describe processes. Prerequisites: MATH 3306 or concurrent registration, ENVE 2310.

ENVE 3310. Engineering Hydrology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
Study of the hydrologic cycle, precipitation processes, soil moisture, infiltration, groundwater, rainfall-runoff processes, utilization of water resources, and frequency analysis; introduction to HEC-HMS programs for modeling hydrologic processes, elementary principles of field work. Prerequisite: ENVE 3300.

ENVE 3333. Groundwater Contamination and Remediation. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is an introduction to the fundamentals of subsurface flow with emphasis on the examination of the fate and transport of inorganic and organic contaminants therein and their management. Topics include groundwater flow and well hydraulics, modeling of contaminant transport processes, site investigations, natural attenuation, remediation and legal issues in groundwater protection. Prerequisite: ENVE 3310; MATH 3306 or concurrent registration.

ENVE 3340. Environmental Risk Assessment. 3 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
Introduction to the fundamentals of environmental and ecological risk assessment, including toxicity assessment, characterizing fate and transport processes in various environmental media, evaluating exposure pathways, dose-response assessment and modeling uncertainty. Prerequisites: ENVE 2310 and ENGR 3311 Lab fee: $2.

ENVE 3350. Environmental Biotechnology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Application of fundamental principles of aquatic chemistry, molecular biology and biochemistry to understand and analyze complex chemical/biological processes in environmental engineering (natural and engineered systems). Prerequisites: CHEM 1409 or CHEM 1312 and 1112; MATH 2414; ENVE 2310.

ENVE 3401. Environmental Systems Modeling. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
Apply conceptual and numerical techniques to model environmental systems. Use differential equations to describe processes. Prerequisites: MATH 3306 and ENVE 2310. Lab fee: $2.

ENVE 3420. Groundwater Hydrology. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
Topics include aquifer characteristics, infiltration, fluid dynamics of groundwater flow, potential flows, well analysis, water quality, groundwater pollution, legal issues in groundwater. Credit for both HYDR 320 and ENVE 320 will not be awarded. Prerequisites: ENVE 2411, GEOL 1403 or ENVE 2310, CHEM 1312 and 1112, MATH 2414. Lab fee: $2.

ENVE 3450. Environmental Biotechnology. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
Application of fundamental principles of aquatic chemistry, molecular biology and biochemistry to understand and analyze complex chemical/biological processes in environmental engineering (natural and engineered systems). Prerequisites: CHEM 1409 or CHEM 1312 and 1112, MATH 2414, ENVE 2310 Lab fee: $2.

ENVE 4086. Special Problems. 1-4 Credit Hours (Lecture: 1-4 Hours, Lab: 0 Hours).
Directed study of selected topics in Environmental Engineering. May be repeated with approval of department head.

ENVE 4220. Environmental Lab. 2 Credit Hours (Lecture: 1 Hour, Lab: 2 Hours).
This course provides an understanding of theoretical concepts in conjunction with practical experimental approaches, skills and techniques pertinent to environmental engineering, water and waste water treatment methods and water quality analysis. Laboratory methods and interpretation of results will be focused. Prerequisite: ENVE 3301 or concurrent registration; ENVE 2310 Lab Fee: $2.

ENVE 4225. Environmental Monitoring and Measurements. 2 Credit Hours (Lecture: 1 Hour, Lab: 3 Hours).
Studying and analyzing environmental engineering processes and systems through appropriate experimental methods. The course will include sampling, protocol development and design of experiments, relevant measurement techniques and experimental methods. Emphasis on quality control, calibration, documentation and interpretation of results facilitating the development of best practice approaches for experimental design and analysis. Prerequisite: ENVE 3350 (coreq); ENVE 4320 (coreq) Lab Fee: $2.

ENVE 4302. Atmospheric Systems and Air Pollution Control. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Study of atmospheric impact on air pollution. Study of sources of air pollution and their control to include gases and particulate matter. Study of air pollution regulations and air pollution modeling. Design of systems to control and abate air pollution. Study and design of sampling systems to monitor air pollution. Prerequisite: CHEM 1409, ENGR 2322.

ENVE 4310. Water Resources Engineering. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
Fundamentals of hydraulics applicable to open channel flow, natural streams and waterways; irrigation flow characteristics; hydrologic analysis; fluid measurement methods; introduction to hydraulic models including HEC-RAS; and economic aspects of water resources. Prerequisite: ENVE 3300.

ENVE 4319. Physical Operations in Water and Wastewater Treatment. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Physical operations in water and wastewater treatment are covered in this course. These include the design of lift stations and gravity sewers, screens, sedimentation tanks, clarifiers and holding basins. Prerequisite: ENVE 3300.

ENVE 4320. Chemical and Biological Processes in Water and Wastewater Treatment. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course covers processes associated with water and wastewater treatment that are mediated chemically or using biological means as well as the design of systems that use such mechanisms. Design of secondary treatment systems, removal of nutrients and design of tertiary treatment systems are covered. Prerequisites: CHEM 2323 (coreq); ENVE 3350 (coreq).

ENVE 4325. Environmental Monitoring and Measurements. 3 Credit Hours (Lecture: 1 Hour, Lab: 3 Hours).
Studying and analyzing environmental engineering processes and systems through appropriate experimental methods. The course will include sampling, protocol development and design of experiments, relevant measurement techniques and experimental methods. Emphasis on quality control, calibration, documentation and interpretation of results facilitating the development of best practice approaches for experimental design and analysis. Prerequisite: ENVE 3350 (coreq); ENVE 4320 (coreq) Lab fee: $2.

ENVE 4330. Texas Water Resource Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
The ecological relation of water in this biosphere with special reference to the human role; the role of behavioral sciences (social, legal, economic, political, and psychological) in the development, conservation, regulation, and utilization of water resources; current political structure and laws pertaining to the administration of water resources in the state of Texas. Prerequisites: ENVE 3310 and GOVT 2306.

ENVE 4350. Solid and Hazardous Waste Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to provide students with the necessary background and knowledge pertaining to the engineering design of solid and hazardous waste management and disposal. Topics covered include landfill design, resource conservation recovery and reuse, hazardous waste management. Prerequisites: CHEM 1409 or CHEM 1312 and 1112, and ENVE 2310.

ENVE 4420. Water and Waste Water Treatment. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
Treatment and distribution of residential and industrial water supplies, waste water treatment and disposal methods of municipal and industrial systems, environmental toxicology; aspects of groundwater monitoring and water quality maintenance. Laboratory analysis of water and waste water quality. Design of elementary treatment, distribution, and collection systems. Prerequisites: CHEM 2423 or both CHEM 2323 and CHEM 2123, ENVE 2310, and ENVE 3300 Lab fee: $2.

Mechanical Engineering Courses

MEEN 2115. Engineering Computer Aided Manufacturing. 1 Credit Hour (Lecture: 1 Hour, Lab: 2 Hours).
This is a fundamental course that demonstrates the integration of Computer-Aided-Design (CAD) and Computer-Aided-Manufacturing (CAM), and examines how to program and operate Computer Numerical Control (CNC) mills and lathes. It is a study of modern prototyping and machining methods, with emphasis on teaching the use of CAM software. This program converts 2D and 3D CAD drawing geometry directly into tool path information that is used to drive numerically-controlled turning and milling machines. Prerequisite: MEEN 2210 (prereq); MATH 2413 (coreq).

MEEN 2210. Engineering Computer Aided Design. 2 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Fundamentals of engineering design and solid modeling using computer aided drafting tools; application of solid modeling, analysis and simulation software and 3-D printing to problem solving and design. Prerequisite: ENGR 1211 (coreq); MATH 2412 (coreq) Lab fee: $2.

MEEN 2212. Programming for Engineers. 2 Credit Hours (Lecture: 1 Hour, Lab: 2 Hours).
Programming principles and techniques for matrix and array operations, equation solving, and numeric simulations applied to engineering problems and visualization of engineering information; platforms include spreadsheets, symbolic algebra packages, engineering analysis software, and laboratory control software. Prerequisite: MATH 2413 Lab fee: $2.

MEEN 2310. Engineering CAD/CAM. 3 Credit Hours (Lecture: 2 Hours, Lab: 3 Hours).
Application of solid modeling, analysis and simulation software and 3-D printing to problem solving and design. Fundamentals of engineering design and solid modeling using computer-aided drafting tools. Standard terminologies, conventions, processes, operations, design and operational characteristics of key hardware components, programming techniques, applications, merits and demerits of Computer Numerical Controlled (CNC) machines. Prerequisite: ENGR 1212; MATH 2413 or concurrent registration Lab fee: $2.

MEEN 3110. Materials and Manufacturing Processes in Design Lab. 1 Credit Hour (Lecture: 0 Hours, Lab: 3 Hours).
This laboratory course provides hands-on experience in modern manufacturing processes and product design. Students will apply fundamental principles of manufacturing engineering to fabricate, analyze, and assemble mechanical components using manual and computer-controlled machinery. The course covers the integration of design and manufacturing through prototyping, tolerance analysis, materials selection, and process planning. Laboratory sessions involve the use of machining, 3D printing, and CAD/CAM software. Corequisite: CVEN 3323, MEEN 3310.

MEEN 3305. Fluid Mechanics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is an introduction to fluid mechanics, and emphasizes fundamental concepts and problem-solving techniques. Topics to be covered include fluid properties, fluid statics, fluid kinematics, control volume analysis, dimensional analysis, internal flows (pipe flows), and external flows (lift and drag). Brief introductions to computational fluid dynamics (CFD), compressible flow, and fluid power systems such as turbomachinery (pumps and turbines) will also be provided. Prerequisite: PHYS 2425, MATH 2414, ENGR 2322.

MEEN 3310. Materials and Manufacturing Processes in Design. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course covers the relationship between product design and manufacturing, assembly, testing and service. Includes materials selection, traditional and nontraditional manufacturing process, inspection, reliability, quality engineering and the economic impact of modern process engineering. Also emphasizes mechanical properties of materials, material microstructures and use of design methodology. Prerequisite: MEEN 2210, ENGR 2324, CVEN 3323 or concurrent enrollment.

MEEN 3314. Signals and Systems. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Modeling and analysis of electrical and mechanical systems using Laplace transformation methods; transient and steady-state analysis; Fourier series; Fourier transform; elementary feedback. Prerequisite: ELEN 2425, MATH 3306 or concurrent registration.

MEEN 3325. Engineering Thermodynamics II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Design of power and refrigeration systems, mixing or separation, multiphase, air conditioning and energy conversion processes; engine design and operating parameters dealing with thermo-chemistry of fuel air mixtures; properties of working fluids; power cycle analysis with thermodynamic properties and working fluids. Prerequisites: ENGR 2322, CHEM 1409, and MATH 3306 (coreq).

MEEN 3335. Mechanical Vibration. 3 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
Modeling, analysis and design for mechanical vibrations. Fundamentals of free vibration, harmonically excited vibration and vibration under general forcing conditions for one degree and multidegree of freedom systems; vibration design strategies including isolation and absorbers; analysis of mechanical systems for stability, resonance, damping, and modal coupling. Prerequisite: ENGR 2324, CVEN 3323, MATH 3306 Lab fee: $2.

MEEN 3345. Heat Transfer. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Heat transfer by conduction, convection, and radiation; steady-state and unsteady heat conduction; free and forced convection heat transfer; radiative heat transfer; heat exchanger analysis. Prerequisite: ENGR 2322, MEEN 3305 (coreq), MATH 3306.

MEEN 3350. Measurement System Design. 3 Credit Hours (Lecture: 2 Hours, Lab: 3 Hours).
Design of measurement systems including hardware and software specifications, design, prototyping and testing. Includes fundamentals of data acquisition, design of experiments, instrumentation and sensor calibration commonly used in industry and research (e.g., sensors, signal conversion and conditioning, and wireless data communications). Prerequisite: ELEN 3314, MEEN 2210, PHYS 2426 Lab fee: $2.

MEEN 3400. Fluid Mechanics. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
Perform analyses involving hydrostatics, fluid dynamics, pipe flow, open-channel flow, pumps, and dimensional analysis. Design and conduct fluid mechanics experiments. Perform computer simulations of fluid processes. Prerequisites: PHYS 2425 and MATH 2414 Lab fee: $2.

MEEN 3440. Heat Transfer. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
Steady and transient conduction in one- and two-dimensions; forced and natural convection; radiation; phase change; basic heat exchangers design; elements of thermal system design. Includes an introduction to computational analysis of heat transfer and temperature distributions and laboratory experiences. Prerequisite: ENGR 2322 Lab fee: $2.

MEEN 4086. Special Problems. 1-4 Credit Hours (Lecture: 1-4 Hours, Lab: 1-4 Hours).
Directed study of selected topics in Mechanical Engineering. May be repeated with approval of department head.

MEEN 4205. Mechanical Engineering Experimental Lab. 2 Credit Hours (Lecture: 1 Hour, Lab: 3 Hours).
Experimentation and measurements in fluid mechanics and heat transfer; efficiency analysis; design of experiment; data processing and analysis; report writing. Prerequisite: MEEN 3305, MEEN 3345 Lab fee: $2.

MEEN 4300. Renewable Energy Systems and Applications. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
Study of renewable energy sources, future demands, energy management and conservation techniques with focus on sources such as solar energy, biomass (conversions), wind power, geothermal energy, ocean energy, fuel cells and hydro power; assessing the viability of renewable energy systems; and analysis of renewable energy systems, applications, backup energy needs and economic factors. Prerequisite: MEEN 3325, MEEN 3305, MEEN 3345.

MEEN 4310. Mechanical Engineering Design I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Application of principles of mechanics and physical properties of materials, stress fundamentals and failure theories to the design, selection and analysis of linear elastic solid materials in machine elements with consideration of economics, safety and design for manufacturing. Prerequisite: MEEN 3310.

MEEN 4320. Mechanical Engineering Design II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Modeling, analysis and design of machine elements such as springs, bearings, gears, shafts, and mechanisms based on extensive application of physics, mathematics, core engineering principles and industrial practice; design for optimal manufacturability, quality and reliability in the mechanical engineering practice of design. Prerequisite: MEEN 4310, MEEN 3305.

MEEN 4325. Mechatronics. 3 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).
The study and design of electromechanical devices including comprehensive principles from mechanics, electronics, instrumentation and software; includes sensors, control systems and actuators along with how to choose a proper controller for mechanical engineering design problems. Prerequisite: ELEN 2425, MEEN 4310; ELEN or MEEN 4443 Lab Fee: $2.

MEEN 4330. Thermal-Fluid System Design. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Application of thermodynamics, heat transfer and fluid mechanics concepts to the analysis and design of thermal-fluid systems. Emphasis on component and system modeling, energy balances, performance measurements and experimental design. Prerequisite: MEEN 3345.

MEEN 4340. Heating Ventilation, A/C (HVAC) Systems Design. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to introduce fundamentals of refrigeration and HAVC systems, properties of refrigerants, non-conventional systems. Students will study: 1) thermal analysis of building envelope including solar heat gain, thermal zoning, 2) HVAC load estimation using ASHRE method as well as commercial software for residential and commercial buildings, 3) HVAC system configuration both all-air and air-water system, and 4) Air-distribution systems including heat pumps, chillers, and boilers. Prerequisite: MEEN 3325, MEEN 3345.

MEEN 4420. Thermal-Fluid System Design. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
Application of thermodynamics, heat transfer and fluid mechanics concepts to the analysis and design of thermal-fluid systems. Emphasis on component and system modeling, energy balances, performance measurements and experimental design. Prerequisite: ENGR 2322, MEEN 3305, MEEN 3345 Lab fee: $2.

MEEN 4425. Mechatronics. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
The study and design of electromechanical devices including comprehensive principles from mechanics, electronics, instrumentation and software; includes sensors, control systems and actuators along with how to choose a proper controller for mechanical engineering design problems. Prerequisite: ELEN 2425, MEEN 4310; ELEN/MEEN 4443 Lab fee: $2.

MEEN 4443. Linear Control Systems. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
Application of state variable and frequency domain techniques to modeling and analysis of single input, single output linear control systems; physical implementation of control systems by integrating sensors, actuators and other control system components; use of software design tools. Prerequisite: ELEN 2425, ELEN 3320 or COSC 3344 or MEEN 2212, MATH 3306. Lab fee: $2.

School of Engineering Courses

SENG 1000. TCC Dual Admit. 0 Credit Hours (Lecture: 0 Hours, Lab: 0 Hours).

College of Liberal & Fine Arts

Dr. Emran El-Badawi, Dean

College of Liberal & Fine Arts
O. A. Grant, Suite 241
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COLFA Mission Statement

The earliest academies advanced human knowledge through philosophy, critical thinking, and debate. Now, over two millennia later, these methods remain at the core of today's universities and in the curriculum of the College of Liberal and Fine Arts. We align ourselves with Tarleton State University's mission to provide an academically challenging education through exemplary teaching, significant research, and inspired creativity. To this end, the College mission is:

- To achieve the highest levels of academic rigor by challenging students to develop and employ higher-order thinking skills as they clearly and effectively communicate and debate their ideas with others;
- To support and enhance the student-centered mission of Tarleton State University through providing our students with a comprehensive general education curriculum of exceptional quality;
- To provide a globalized curriculum through study-abroad and study-away experiences, through interaction with many cultures, languages, and perspectives within and beyond America;
- To engage our quest for human knowledge through forward-thinking faculty research, publication, and student engagement as well as applied learning experiences beyond the classroom;
- To foster creative expression and artistic value through arts, performances, presentations, and activities;
- To encourage and prepare students to excel in their chosen professional fields and to contribute as leaders of integrity in human society;
- To integrate ourselves fully into our community, state and beyond through programming, service, cultural offerings, the arts, and global outreach.

Departments and Programs

Degree programs available in the College of Liberal and Fine Arts provide the foundation required for many professional and related fields. Also included are specialized programs that are professionally oriented and lead to careers in such fields as teaching, criminal justice, and the performing arts. The College of Liberal and Fine Arts is organized into six academic departments, one school hosting two additional departments, and two non-academic departments :

- Department of Communication Studies (p. 269)
  - BAAS in Communications
  - BS in Communications
- Department of English and Languages (p. 275)
  - BA in English
  - BA in Spanish
- Department of Government, Legal Studies and Philosophy (p. 284)
  - BA in Legal Studies
  - BS in Legal Studies
  - BA in Political Science
  - BS in Political Science
- Department of History, Geography and GIS (p. 293)
  - BAAS in Geographic Information Systems
  - BS in Geography and Geographic Information Systems
  - BA in History
- Department of Performing Arts (p. 301)
  - BA in Music
  - BM in Music
  - BFA in Theatre
- Department of Visual Arts and Design (p. 315)
  - BFA in Art
  - BS in Digital Media Studies
- School of Criminology, Criminal Justice, and Public Administration (p. 262)
  - Department of Public Administration (p. 267)
    - BAAS in Public Administration
    - BS in Public Administration
  - Department of Criminal Justice (p. 262)

- BS in Criminal Justice
- BAAS in Criminal Justice Administration

The College of Liberal and Fine Arts also offers discipline-specific minors, interdisciplinary minors, and certificates. A minor consists of 18 hours (six hours must be advanced level 3000 or 4000 courses), and certificate requirements vary.

School of Criminology, Criminal Justice, and Public Administration

School of Criminology, Criminal Justice, and Public Administration
College of Liberal and Fine Arts
O.A. Grant Building, Room 355
Box T-0008
Stephenville, TX 76402
254-968-9106
percivill@tarleton.edu

Tamara Percivill, Administrative Coordinator
School of Criminology, Criminal Justice, and Public Administration
O.A. Grant Building, Room 355
Stephenville, TX 76402
254-968-9106
percivill@tarleton.edu

The School of Criminology, Criminal Justice, and Public Administration includes two academic departments, the Department of Criminal Justice and the Department of Public Administration. In addition, the School also houses four research institutes: the Institute for Predictive and Analytic Policing Science, the Institute for Homeland Security, Cyber Crime and International Criminal Justice Studies, the Institute for Criminal Justice Leadership and Public Policy, and the Institute on Violence Against Women and Human Trafficking . The mission of the School of Criminology, Criminal Justice, and Public Administration is to provide students with a quality education through academic and leadership experiences, as well as to provide service to the community and profession through research and scholarship.

The School offers the following undergraduate programs:

Department of Criminal Justice

BS in Criminal Justice

BAAS in Criminal Justice Administration

Department of Public Administration

BS in Public Administration

BAAS in Public Administration

Department of Criminal Justice

Dr. Olga Semukhina, Department Head
Department of Criminal Justice
Building 1, Room 334
Box T-0665
Fort Worth, TX
817-717-3686
semukhina@tarleton.edu

Tamara Percivill, Administrative Coordinator
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The Department of Criminal Justice offers programs of study leading to a Bachelor of Science in Criminal Justice and a Bachelor of Applied Arts and Sciences in Criminal Justice Administration. The Department also offers minors in the following areas: Criminal Justice, Criminal Law, Homeland Security, and Conservation Law Enforcement. Students can also choose to pursue undergraduate certificates in Crime Analysis or Cyber Security as part of their undergraduate degree program.

The Bachelor of Science Degree in Criminal Justice

General Education Requirements (p. 396)		42
ENGL 1301 [shared] [WI (p. 396)]	Composition I	
ENGL 1302 [shared] [WI (p. 396)]	Composition II	
CRIJ 1301 [shared]	Introduction to Criminal Justice	
CRIJ 1306	Court Systems and Practices	3
CRIJ 1310	Fundamentals of Criminal Law	3
CRIJ 2313	Correctional Systems and Practices	3
CRIJ 2328	Police Systems and Practices	3
CRIJ 3305	Criminology	3
CRIJ 3308	Comparative Criminal Justice	3
or CRIJ 3309	Victimology	
or CRIJ 4305		
or CRIJ 4340	Contemporary Crime and Justice	
CRIJ 3313 [WI (p. 396)]	Professional Writings in Criminal Justice	3
or ENGL 3309	Professional Writing	
CRIJ 4312	Criminal Justice Ethics	3
CRIJ 4316 [WI (p. 396)]	Methods of Criminal Justice Research	3

Select one of the following:		3
CRIJ 4318	Criminal Justice Statistics	
SOCI 3330	Social Science Statistics	
Advanced CRIJ Electives		15
CRIJ 4398 [WI (p. 396)]	Criminal Justice Capstone	3
or CRIJ 4331	Criminal Justice Internship	
or CRIJ 4387	Seminar: Study Away/Abroad	
SPAN 1303	Basic Spanish for Vocations	3
or SPAN 1411	Beginning Spanish I	
Electives (9 Hours Advanced)		27
Total Hours		**120**

The Bachelor of Applied Arts and Sciences Degree in Criminal Justice Administration

General Education Requirements (p. 396)		42
ENGL 1301 [shared] [WI (p. 396)]	Composition I	
ENGL 1302 [shared] [WI (p. 396)]	Composition II	
CRIJ 3313 [WI (p. 396)]	Professional Writings in Criminal Justice	3
or ENGL 3309	Professional Writing	
CRIJ 3305	Criminology	3
CRIJ 3308	Comparative Criminal Justice	3
or CRIJ 3309	Victimology	
or CRIJ 4340	Contemporary Crime and Justice	
CRIJ 3310	Criminal Justice Supervision and Management	3
CRIJ 3315	Rules of Criminal Evidence	3
CRIJ 3340	Homeland Security	3
CRIJ 4312	Criminal Justice Ethics	3
CRIJ 4316 [WI (p. 396)]	Methods of Criminal Justice Research	3
CRIJ 4318	Criminal Justice Statistics	3
or SOCI 3330	Social Science Statistics	
CRIJ 4398 [WI (p. 396)]	Criminal Justice Capstone	3
or CRIJ 4331	Criminal Justice Internship	
or CRIJ 4387	Seminar: Study Away/Abroad	
Advanced CRIJ Electives		6
Credit for Prior Learning Component (Must Total 42 Hours):		
Credit for Prior Learning		12-42
CRIJ Electives		0-30
Total Hours		**120**

Peace Officer Exemption Information

To be eligible for the exemption, a Peace Officer must:

1. Be employed as a Peace Officer by the State of Texas or by a political subdivision of Texas
2. Apply for admission and be accepted to the university
3. Provide the Department of Criminal Justice proof of employment as a currently paid Peace Officer (required each semester in which the exemption will be used). A letter from the employer on official letterhead, an email from your employer's official email account, or a recent two week pay stub will fulfill this requirement.
4. Have a degree plan on file in the Registrar's Office for an eligible Criminal Justice degree program at the institution:
   BS, Criminal Justice
   BAAS, Criminal Justice Administration
5. Apply for the exemption at least one week before the last day of the institution's regular registration period for that semester.
6. Submit the completed Application for Texas Peace Officer Exemption form (http://tarleton.edu/registrar/forms/TexasPeaceOfficerExemptionapplication.pdf).
7. Be in compliance with the institution's financial aid satisfactory academic progress requirement

NOT ALL TUITION AND FEES MAY BE COVERED BY THE EXEMPTION. STUDENTS ARE RESPONSIBLE FOR ANY ADDITIONAL TUITION AND FEES THAT MAY NOT BE COVERED.

ELIGIBLE COURSES:

- The date you submit your application will be used to determine the eligibility of courses.
- No more than 20 percent of the maximum student enrollment designated by the institution for a given law enforcement or criminal justice class may receive an exemption under this program ***(this will be determined on a first come, first served basis).***
- Only undergraduate courses pertaining to the major requirement of criminal justice degrees are eligible for the tuition and laboratory fees exemption.

SUBMITTING THE PEACE OFFICER TUITION EXEMPTION FORM:

All exemption forms must be submitted online via https://tarleton.az1.qualtrics.com/jfe/form/SV_57wiSzK69Mhlyse (https://tarleton.az1.qualtrics.com/jfe/form/SV_57wiSzK69Mhlyse/). Any questions about exemptions can be directed to cjbaas@tarleton.edu.

Minor in Criminal Justice

CRIJ 1301	Introduction to Criminal Justice	3
CRIJ 3305	Criminology	3
CRIJ 4301	Crime, Individuals, and the Criminal Justice System	3
or CRIJ 4303	Crime and Justice in the Social Context	

CRIJ Electives		9
Total Hours		**18**

Minor in Criminal Law

CRIJ 1306	Court Systems and Practices	3
CRIJ 1310	Fundamentals of Criminal Law	3
CRIJ 2314	Criminal Investigation	3
CRIJ 3315	Rules of Criminal Evidence	3
CRIJ 4326	Criminal Procedure	3
CRIJ 4383	Seminar: Special Topics in Criminal Law	3
or CRIJ 4361	Texas Wildlife Law	
Total Hours		**18**

Minor in Homeland Security

Required courses:		9
CRIJ 3340	Homeland Security	
CRIJ 3341	Terrorism	
CRIJ 4353	Global Cyber-Security	
Take 9 hours from:		9
CRIJ 3308	Comparative Criminal Justice	
CRIJ 4384	Seminar: Special Topics in Homeland Security	
POLS 3308 [WI (p. 396)]	International Politics	
Total Hours		**18**

Minor in Conservation Law Enforcement

CRIJ 4360	Conservation Law Enforcement	3
CRIJ 4361	Texas Wildlife Law	3
CRIJ 4362	Green Criminology	3
Select 9 credit hours of the following electives		9
ENVS 1302	Science, Technology, and the Environment	
ENVS/WSES 3315	Sustainability	
WSES/ANSC 3323	Ethical Issues in Agriculture and the Natural Resources	
or PHIL 4305	Environmental Ethics	
WSES 3375	Population, Pollution, and Resource Depletion	
SOCI 3312	Environmental Sociology	
ENVS 3310	Environmental Policy	
ENVS 4301	Environmental Law	
ENVS 4312	International Environmental Issues	
ENVS 4302	Land Use in the American West	
Total Hours		**18**

Certificate in Crime Analysis

CRIJ 3370	Introduction to Crime Analysis	3
CRIJ 3371/GEOG 3352	Introduction to Crime Mapping	3
CRIJ 4316 [WI (p. 396)]	Methods of Criminal Justice Research	3
CRIJ 4318	Criminal Justice Statistics	3
CRIJ 4332	Field Experience in Crime Analysis	3
or CRIJ 3305	Criminology	
or CRIJ 3306	Crime Prevention	
Total Hours		**15**

Certificate in Cyber Security

CRIJ 3315	Rules of Criminal Evidence	3
BCIS 4320	Computer Forensics	3
BCIS 4342	Ethical Hacking & Network Defense	3
BCIS 4345	Network and Systems Security	3
CRIJ 4353	Global Cyber-Security	3
Total Hours		**15**

Professors

- Semukhina, Olga Dr.
- Shelley, Tara
- Styron, Kelli

Associate professors

- Dobbs, Rhonda
- Hankhouse, Shannon
- Wang, Kevin

Assistant professors

- Bae, Junghwan Dr.
- Genco, Leo
- Keller, Tyler Dr.
- Korotchenko, Stan
- Wilds, Katherine Dr.

Professional Full Professor

- Brown, Katherine

Professional Associate Professor

- Rodriguez, Brittany

Professional Assistant Professor

- Heath, William 'Casey'
- McLaurin, Tiffany

Instructor

- Sutton, Brittany

Courses

CRIJ 1000. TCC Dual Admit. 0 Credit Hours (Lecture: 0 Hours, Lab: 0 Hours).

CRIJ 1301. Introduction to Criminal Justice. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A survey of the history, philosophy, and operations of the American criminal justice system. Topics include the nature of crime and justice, the history and development of the modern criminal justice system and the role of police, judiciary, and corrections in society.

CRIJ 1306. Court Systems and Practices. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is an introduction to the role of the judiciary in the criminal justice system. Topics include right to counsel, pre-trial release, grand juries, adjudication process, and sentencing. Prerequisite: In progress CRIJ 1301.

CRIJ 1310. Fundamentals of Criminal Law. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the nature of criminal law, philosophical and historical development, major definitions and concepts, classification of crime, elements of crimes and penalties using Texas statutes as illustrations, and criminal responsibility. Prerequisite: in progress CRIJ 1301.

CRIJ 1313. Juvenile Justice System. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the juvenile justice process to include specialized juvenile law, role of the juvenile law, role of the juvenile courts, role of police agencies, role of correctional agencies, and theories concerning delinquency. Prerequisite: CRIJ 1301 Intro to CJ.

CRIJ 2313. Correctional Systems and Practices. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introduction to corrections as a profession. Topics include organization of correctional agencies, the role of corrections in society, correctional philosophies and agency operations, and current and emerging issues. Prerequisite: in progress CRIJ 1301.

CRIJ 2314. Criminal Investigation. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines the investigative theory, collection, and preservation of evidence, sources of information, interview and interrogation, uses of forensic sciences, and case and trial preparation. Prerequisite: In progress CRIJ 1301 Intro to CJ.

CRIJ 2328. Police Systems and Practices. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is an introduction to the police profession. Topics include organization of law enforcement agencies, the police role in society, police operations, discretion, corruption, and current and emerging issues. Prerequisite: In progress CRIJ 1301.

CRIJ 3301. Survey of Forensic Science. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduces the scientific methods that currently play a major role in solving crimes. It provides background information on various forensic disciplines together with the basic techniques utilized by forensic scientists in analyzing common types of physical evidence.

CRIJ 3302. Crime Scene Investigation. 3 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
Principles, procedures, processes, and hands-on experience for conducting investigations ranging from the general crime scene to death investigations. A student cannot get credit for CRIJ 3302 if credit has previously been received for FORS 3320 Prerequisite: FORS 1301 Lab fee: $2.

CRIJ 3305. Criminology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Study and critical appraisal of various theories of crime causation, including an examination of classical, biological, psychological, and sociological perspectives on the etiology of crime.

CRIJ 3306. Crime Prevention. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to provide an exploration of the various approaches to reducing crime, including the theoretical bases for those approaches. Emphasis is placed on applying knowledge to real-world crime-prevention scenarios through hands-on analysis of neighborhoods, parking structures, retail stores, and media messages, to name a few examples.

CRIJ 3308. Comparative Criminal Justice. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of criminal justice systems around the world. The organization, administration, and philosophy of various criminal systems will be examined, along with the cultural and historical environment in which they developed and exist.

CRIJ 3309. Victimology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The course is an introduction to the field of victimology. Emphasis will be given to characteristics of crime victimization and victims, the impact of victimization, and the treatment of victims within the criminal justice system.

CRIJ 3310. Criminal Justice Supervision and Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of theories and principles of supervision as applied to criminal justice agencies. Topics include organization, leadership, motivation, human resources flow, and managerial ethics.

CRIJ 3311. Techniques of Interviewing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of interview and interrogation techniques. Topics include preparation, environmental and psychological factors, legal issues, and ethics.

CRIJ 3313. Professional Writings in Criminal Justice. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
The process of developing and documenting information related to criminal justice field work and graduate studies in criminology and criminal justice, including researching, editing, revising, and creating technical reports, case narratives, grant applications and reports, academic and field related research proposals, training modules, and correspondence. Students will use word processing and related graphic software. Prerequisite: Criminal Justice major (BS and BAAS) or Criminal Justice minor or Criminal Justice concentration, and ENGL 1301 and ENGL 1302.

CRIJ 3315. Rules of Criminal Evidence. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An analysis of the procedures and rules of evidence applied to the acquisition, offering, admissibility, and presentation of evidence from the crime scene, courtroom, and appellate court perspectives.

CRIJ 3320. Serial Killers. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines the evolution of serial homicide and the role of social influences on serial killers. Various criminological and psychological theories are discussed and applied to some of the more infamous serial killers in American society.

CRIJ 3330. Community Corrections. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the philosophy, administrative procedures, and operational techniques used in the community based treatment and supervision of offenders.

CRIJ 3340. Homeland Security. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An in-depth study of strategic, legal, policy, operational, and organizational issues associated with the defense of the U.S. homeland from foreign and domestic terrorist threats. Topics include psychology of mass movements, terrorists' ideology, religion and terror, legal issues in homeland security, weapons of mass destruction, effective interfacing between local, state, and federal agencies, emergency management operations and dealing with mass casualties.

CRIJ 3341. Terrorism. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is an in depth study of domestic and international terrorism. Major issues to be considered include history and development of terrorism, types of terrorism and terrorist groups, the role of terrorist organizations, motivations for terrorism, and the techniques of terrorism.

CRIJ 3350. Media, Crime, and Criminal Justice. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will examine the representation of crime and criminal justice in popular culture, in particular in television and film. The purpose of this class is to explore the role of media representation in the understanding of criminal justice issues and policies.

CRIJ 3360. Sex Crimes. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will examine sexual offenses and sexual offenders; including pornography, rape, sexually motivated homicides, and nuisance and dangerous sex crimes. The course will study the various typologies of these offenders, as well as their impact on the Criminal Justice System.

CRIJ 3370. Introduction to Crime Analysis. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides introductory skills needed for efficient data management. The manipulation and conversion of crime data to useful information are a basic requisite to accomplish data-driven management and support intelligence-led policing. Several data management applications are examined including MS Excel and Access. No prerequisites.

CRIJ 3371. Introduction to Crime Mapping. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The course provides conceptual knowledge and practical skills to design and implement a GIS-based analysis of community crime problems. This course constitutes an introduction to the scope and methods of crime mapping and analysis. The theory, logic, and practical applications of mapping and analysis are examined with a focus on developing a knowledge base, skills, and integration of mapping and analysis concepts that are applicable to crime detection and prevention. No prerequisites.

CRIJ 4086. Problems in Criminal Justice. 1-6 Credit Hours (Lecture: 1-6 Hours, Lab: 0 Hours).
Independent reading, research and discussion. Entry into this course will be arranged with the department head.

CRIJ 4301. Crime, Individuals, and the Criminal Justice System. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is an introduction to the issues related to women as victims, offenders, and professionals in the criminal justice system.

CRIJ 4303. Crime and Justice in the Social Context. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines the relationship between crime and various societal factors within the context of the American Criminal Justice System.

CRIJ 4312. Criminal Justice Ethics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course presents an analysis of contemporary ethical issues in crime and justice. Classical and contemporary ethical theories will be applied to the discussion of such issues as discretion, corruption, use of force, racism, deception, professionalism, and the nature and meaning of justice.

CRIJ 4316. Methods of Criminal Justice Research. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This course is an introduction to the methods of criminological and criminal justice research, with emphasis on research ethics, research design, and methods of data collection and analysis. Prerequisites: Criminal Justice major (BS and BAAS) and ENGL 1301 and ENGL 1302.

CRIJ 4318. Criminal Justice Statistics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is an introduction to the elementary forms of statistical analysis, including measures of central tendency, variation, the normal curve and Z scores, measures of difference, regression analysis, and correlations. Emphasis will be placed on application of statistical analysis to criminal justice research and planning using the SPSS data analysis program. Prerequisite: CRIJ 4316.

CRIJ 4321. Death Investigation. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Death Investigation will introduce the student to the conceptual framework of the management of death investigations involving offenders who commit a series of violent crimes. This course will enable students to apply knowledge about serial violent offenders to overcome current and future challenges in criminal justice organizations that may encounter these types of offenders and investigations.

CRIJ 4324. Penology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the structure and function of correctional systems and how various philosophies of correctional treatment affect the operation of confinement institutions.

CRIJ 4325. Advanced Investigation. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Advanced criminal and civil investigation topics will be covered. An examination of frequently used, yet special investigative techniques will also be introduced. Emphasis will be placed on crime scene processing, crime scene analysis, forensic evaluations, investigative techniques, and investigative surveys.

CRIJ 4326. Criminal Procedure. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course covers the fundamental principles of criminal procedural, including key concepts related to the Fourth, Fifth, Sixth, and Fourteenth Amendments.

CRIJ 4331. Criminal Justice Internship. 3 Credit Hours (Lecture: 0 Hours, Lab: 8 Hours).
This course examines the application and integration of academic content and development of skills within a criminal justice setting. Entry into this course will be arranged with the internship coordinator. The student is required to complete 100 documented hours with a criminal justice-related agency and approved by the coordinator. The internship cannot be completed at a student's place of current or former employment. May be taken more than once for credit. Maximum 6 hours of credit. Prerequisite: In progress Junior Classification.

CRIJ 4332. Field Experience in Crime Analysis. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Application and integration of academic content and development of skills within a criminal justice setting. Entry into this course will be arranged with the internship coordinator. May be taken more than once for credit.

CRIJ 4340. Contemporary Crime and Justice. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines contemporary issues in crime and justice, focusing on the dynamic and evolving nature of criminal behavior, justice policies, and system responses. Students will analyze current trends in crime, the impact of social and technological changes, and the challenges facing law enforcement, courts, and corrections.

CRIJ 4353. Global Cyber-Security. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The course presents a conceptual overview of information security and its impact on the global stage. Topics include: current trends and over all landscape in information warfare, cybercrime techniques, cyber-terrorism, and information security fundamentals. Included is an emphasis on policy implications for law enforcement at the national level.

CRIJ 4360. Conservation Law Enforcement. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The class examines the body of law governing the taking and possession of wild animals, wildlife parts, and goods made from wildlife. It focuses on the doctrine of state ownership of wildlife and the regulatory tools used by the states and the federal government to conserve an ample supply of wildlife while providing equitable opportunities for the public to share in the privileges of ownership.

CRIJ 4361. Texas Wildlife Law. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The course examines Texas laws governing the taking and possession of wildlife. The class focuses on the doctrine of state ownership of wildlife and the regulatory tools used by the state of Texas to conserve an ample supply of wildlife while providing equitable opportunities for the public to share in the privileges of ownership.

CRIJ 4362. Green Criminology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The course examines crimes and harms affecting the natural environment, ecological systems, and human and non-human animal life. Green Criminology is a new area of specialization within Criminology and Criminal Justice, so we will review a range of issues and theories that fit under its evolving parameters of interest (e.g., food crime, crimes against nonhuman animals, pollution and toxic waste, extraction, ecocide, climate change). We will review the causes and consequences of environmental/green crime and examine the offenders that commit such crimes and their victims while also exploring why it is important to study these topics from a criminological perspective. Finally, the course will review if and how the criminal justice system responds to green crimes.

CRIJ 4383. Seminar: Special Topics in Criminal Law. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Topics pertaining to criminal law and the criminal court system. Specific topics will vary according to timeliness and need. May be taken more than once for credit as the topic varies.

CRIJ 4384. Seminar: Special Topics in Homeland Security. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Topics will vary according to timeliness and need. May be taken more than once for credit as topic varies.

CRIJ 4385. Seminar: Special Topics in Criminal Justice. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Topics will vary according to timeliness and special needs. May be taken more than once for credit. Prerequisites: CRIJ 1301.

CRIJ 4387. Seminar: Study Away/Abroad. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Topics will vary according to timeliness and special needs. May be taken more than once for credit. This course requires travel within the US or internationally.

CRIJ 4398. Criminal Justice Capstone. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This course is designed for upper level students in Criminal Justice. Students will learn the applicability of research methods, criminal justice theory; along with current issues into real-life job related scenarios. Specifically, students will have the opportunity to implement what they have learned in prior criminal justice classes to their current and/or future careers. This is a writing intensive course. Prerequisites: In progress Senior classification. Restricted to Criminal Justice majors. CRIJ 3305 and CRIJ 4316 and ENGL 1301 and ENGL 1302.

Department of Public Administration

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The Bachelor of Science in Public Administration

The School of Criminology, Criminal Justice, and Public Administration offers a Bachelor of Science in Public Administration.

The Bachelor of Science in Public Administration equips students with knowledge and skills that cover a wide range of topics and disciplines related to the public sector. Students acquire knowledge about government bodies and agencies, including municipal, state and federal operations in areas such as intergovernmental relations, human resource management, public policy, and budgeting and finance.

General Education Requirements (p. 396)		42
PUAD 3301	Principles of Public Administration	3
PUAD 3302	Intergovernmental Relations	3
PUAD 3303 [WI (p. 396)]	Introduction to Public Policy	3
PUAD 3305	Introduction to Public Budgeting	3
PUAD 4304	Organizational Behavior in Public Administration	3
PUAD 4305	Human Resource Management in Public Administration	3
PUAD 4317 [WI (p. 396)]	Capstone in Public Administration	3
PUAD 4318	Public Administration Ethics	3
PUAD 4319 [WI (p. 396)]	Professional Writings in Public Administration	3
Advanced PUAD Elective		3
Electives		30
Total Hours		**102**

Accelerated Public Administration

Advanced PUAD Electives		12
MPA Graduate Core Courses: Select two of the following:		6
MAPA 5300	Public Administration	
MAPA 5301	Organizational Behavior in the Public Sector	
MAPA 5302	Human Resource Management in the Public Sector	
MAPA 5315	Budgeting and Financial Management for Public and Nonprofit Organizations	
MAPA 5322	Ethics in Public Service	
MAPA 5331	Public Policy Formulation and Analysis	
MAPA 5398	Research Methods in Public Administration	
Total Hours		**18**

General Public Administration

Advanced PUAD Electives	18
Total Hours	**18**

The Bachelor of Applied Arts and Sciences in Public Administration

General Education Requirements (p. 396)		42
PUAD 3301	Principles of Public Administration	3
PUAD 3302	Intergovernmental Relations	3
PUAD 3303 [WI (p. 396)]	Introduction to Public Policy	3
PUAD 3305	Introduction to Public Budgeting	3
PUAD 4304	Organizational Behavior in Public Administration	3
PUAD 4305	Human Resource Management in Public Administration	3
PUAD 4319 [WI (p. 396)]	Professional Writings in Public Administration	3
PUAD 4317 [WI (p. 396)]	Capstone in Public Administration	3
PUAD 4318	Public Administration Ethics	3
Advanced PUAD Elective		3
Credit for Prior Learning Component:		
Credit for Prior Learning		12-42
Electives		0-30
Total Hours		**114**

Accelerated Track

MPA Graduate Core Courses: Select two of the following:		6
MAPA 5300	Public Administration	
MAPA 5301	Organizational Behavior in the Public Sector	
MAPA 5302	Human Resource Management in the Public Sector	
MAPA 5315	Budgeting and Financial Management for Public and Nonprofit Organizations	
MAPA 5322	Ethics in Public Service	
MAPA 5331	Public Policy Formulation and Analysis	
MAPA 5398	Research Methods in Public Administration	
Total Hours		**6**

General Public Administration

Advanced PUAD Electives	6
Total Hours	**6**

Courses

PUAD 3301. Principles of Public Administration. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introductory course in public administration and PA theory. Credit cannot be awarded for both PUAD 3301 and POLS 3307. Prerequisite: GOVT 2305.

PUAD 3302. Intergovernmental Relations. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introductory course exploring and describing the duties, responsibilities and relationships of the American Federalism system.

PUAD 3303. Introduction to Public Policy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
An introductory course in the public policy making process to include formulation, negotiation and implementation of public policy as well as policy evaluation.

PUAD 3304. Texas and Local Governmental Intergovernmental Relations. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A course on the intergovernmental relationships and responsibilities between state and local governments (counties, municipalities, schools districts and special districts). This course should be offered in a semester in which the state legislature is in session so that students can experience reality based field observation (field trip to the state legislature).

PUAD 3305. Introduction to Public Budgeting. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will introduce the processes, formats, and theories of public budgeting to include taxation, service delivery levels and expenditures at the federal, state and local levels.

PUAD 3306. Leadership in Public Administration. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will explore the various leadership theories as well as other related topics to leadership associated with the public sector and public governance.

PUAD 3307. Futures Studies in Public Administration. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will offer an introduction into futures studies methods and processes and how futures studies can be utilized to improve public administration and prepare future public administration models and issues, particularly as they relate to future conditions, challenges and opportunities facing public administration, responsible government and public governance.

PUAD 3308. Seminar in Professional Practices in Public Administration. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will offer an introduction into professions and professionalism in public administration. The course will address professional conduct, responsibilities and roles at the various levels of government as it relates to public administrators.

PUAD 3309. Comparative Public Administration. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introductory course in comparative public administration; exposure to other systems of governance and public administration (foreign).

PUAD 4301. Legitimacy in Public Administration. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The course will explore legitimacy, legal authority and trust related to public administration. It will also delve into the US Constitution, Constitutional Law and the Federalists Papers and other sources of authority and legitimacy of public administration.

PUAD 4302. Evidence Based Decision Making in Public Administration. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The course will explore utilizing information, research, statistics, other types of information and sources as it relates to the disciplined process of evidence based decision making in the public sector.

PUAD 4303. Emergency Management in Public Administration. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This class will focus on all areas of emergency management, National Incident Management System (NIMS), Incident Management System (ICS), and the duties and responsibilities of the various players, at all levels of government in responding to natural, man-made, bio-hazard, chemical, medical and terrorist type incidents and how it relates to American Federalism. Included in this course will be the study of emergency management from the perspective of continuity of government and planning related to emergency management.

PUAD 4304. Organizational Behavior in Public Administration. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Public sector organization behavior related processes, motivation, leadership, systems and other topics related to how public organizations perform, establish and pursue public sector objectives in the public interest paradigm.

PUAD 4305. Human Resource Management in Public Administration. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Human resource management from the point of view of the unique demands and circumstances found in the public sector including motivation theories, talent management (recruitment, hiring, development, training, promotion and discipline) and strategic human resource needs of public sector organizations, now and into the future.

PUAD 4306. Project Management in the Public Sector. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The course will focus on planning, executing and finishing public sector project utilizing a number of systems approaches and project management models.

PUAD 4307. Public Policy Domains in Public Administration. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The course will focus on a variety of policy areas (domains), issues and challenges across the spectrum of public administration. This course can be repeated once, but requires the approval of the department head or academic advisor.

PUAD 4308. Public Policy Analysis. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The course will focus on the policy analysis process to include problem identification, formulation of alternatives, measurement criteria, evaluation and decisions loops and the tools associated with decision-making in the public sector.

PUAD 4309. Basic GeoSpatial Techniques and Technologies. 3 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
Basic introductory course in geospacial technologies and techniques associated with geographical information systems.

PUAD 4310. GeoSpatial Methods for Public Administration. 3 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
The use of GeoSpacial equipment and techniques, utilizing GIS information for intelligence led governance (aka smart governance), planning and project development and management. Prerequisite: PUAD 4309 or equivalent.

PUAD 4311. Emerging Issues in Public Administration. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Seminar class on emerging issues across the political, cultural, economic, and social spheres that are related to World/USA issues that might impact public administration at any one or all levels of government -- federal, state and local.

PUAD 4312. Non-Profit Sector Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The course will focus on management of nonprofit organizations delivering public goods and services.

PUAD 4313. Alternative Dispute Resolution and Mediation for Public Administration. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The course will focus on alternative dispute resolution methods and mediation for problem-solving associated with individual and community disputes.

PUAD 4315. Research Methods in Public Administration. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The course will focus on research methods and processes associated with scholarly inquiry and the practical application of research and evaluation research in public administration.

PUAD 4316. Statistics in Public Administration. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Dedicated course in statistical methodologies and applications associated with public administration. Prerequisite: PUAD 4315.

PUAD 4317. Capstone in Public Administration. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This course will provide for a capstone experience in public administration leading to the completion of a senior paper in some area of public administration. This course is a required course for the BSPA. Prerequisite: Junior or Senior Status.

PUAD 4318. Public Administration Ethics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines contemporary ethical issues in public administration. Classical and modern ethical theories are applied to topics such as discretion, corruption, public interest, deception, professionalism, and the nature and meaning of justice. Prerequisite: Junior classification.

PUAD 4319. Professional Writings in Public Administration. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
The process of developing and documenting information related to undergraduate studies in public administration, including researching, editing, revising, and creating technical reports, case narratives, grant applications and reports, academic and field related research proposals, training modules, and formatting professional correspondence to include memoranda. Students will use word processing and related graphic software. Prerequisites: ENGL 1301 and ENGL 1302.

PUAD 4384. Internship in Public Administration. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will provide an opportunity for a student to work in a public sector organization to gain experience, establish work ethic and create a network for career development. Prerequisite: Junior or Senior Status.

PUAD 4386. Independent Study in Public Administration. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The course provides flexibility of inquiry and study in an area of interest in public administration. Requires approval of department head or instructor.

PUAD 4390. Special Topics in Public Administration. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The course is will examine and explore various topics of interests in public administration that will be determined on an rotational basis. Requires approval of the department head or academic advisor.

Department of Communication Studies

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Mission Statement

The mission of the Department of Communication Studies is to deliver a transformative, versatile program, emphasizing new technologies and social media strategies alongside traditional foundations. We cultivate a vibrant learning community, focusing on critical thinking, collaboration, and ethical communication. Graduates leave Tarleton well-prepared to lead organizational communication initiatives, utilizing social media, understanding theoretical approaches and effective strategies, and staying ahead in the evolving communication landscape. Rooted in flexibility and accessibility, our program instills innovation and adaptability, enabling graduates to excel as impactful leaders, shaping their organizations and the broader world.

To accomplish this, the Department of Communication Studies offers both a Bachelor of Science degree in Communication Studies and a Bachelor of Applied Arts and Sciences degree in Communication Studies. The department also offers a minor in Communication Studies. Recommendations concerning a student's minor course requirements are made to the department head by the student's academic advisor.

For the Bachelor of Science degree program, concentrations are offered in areas of Public Relations & Social Engagement, Journalism & Broadcasting, Sports Communication, Travel, Event, & Activity Management (TEAM), and Professional & Relational Communication.

Not all programs are offered on all campuses.

Bachelor of Science in Communication Studies Program Requirements

General Education Requirements (p. 396)		42
COMM 1307	Introduction to Mass Communication	3
COMM 3310	Communication Law	3
ENGL 1301 [shared] [WI (p. 396)]	Composition I	
ENGL 1302 [shared] [WI (p. 396)]	Composition II	
ENGL 3309 [WI (p. 396)]	Professional Writing	3
PHIL 3301 [shared]	Ethics in the Professions	
Sophomore Literature [shared]		
Total Hours		**51**

Journalism and Broadcasting

Select one of the following [shared]:		
COMM 1311	Introduction to Speech Communication	
COMM 1315	Public Speaking	
COMM 2302	Business and Professional Speaking	
COMM 1316	Introduction to Photojournalism	3
COMM 2311	News Gathering & Writing	3
COMM 2333	Broadcast Journalism	3
COMM 3308	Digital Video Production	3
COMM 3311 [WI (p. 396)]	Feature Writing	3
COMM 4301	Media Management	3
COMM 4309	Advanced Reporting	3
COMM 4312 [WI (p. 396)]	Communication Theory	3
COMM 3313	Community Journalism	3
COMM 3315	Digital Journalism	3
Electives		24
Advanced COMM Elective		3
Advanced ENGL Elective		3
Advanced Electives		9
Total Hours		**69**

Professional and Relational Communication

COMM 2302 [shared]	Business and Professional Speaking	
or COMM 1311	Introduction to Speech Communication	
or COMM 1315	Public Speaking	
COMM 3303	Debate	3
or COMM 3340	Persuasion	
COMM 3304	Interpersonal Communication	3
COMM 3332	Intercultural Communication	3
COMM 4304	Organizational Communication	3
COMM 4312 [WI (p. 396)]	Communication Theory	3
COMM 4339	Teamwork and Decision Making	3

Advanced COMM elective		6
Six Hours in BUSI, MGMT, or MKTG		6
Electives		30
Advanced Electives		9
Total Hours		**69**

Public Relations & Social Engagement

COMM 2302 [shared]	Business and Professional Speaking	
or COMM 1311	Introduction to Speech Communication	
or COMM 1315	Public Speaking	
COMM 2311	News Gathering & Writing	3
Select one of the following:		3
COMM 2308	Broadcast Production	
COMM 2324	Careers in Communications	
COMM 2325	Event Coordination	
COMM 3308	Digital Video Production	3
or COMM 3314	Generative AI and Communication Technologies & Practices	
COMM 3320	Public Relations	3
COMM 3328 [WI (p. 396)]	Public Relations Writing	3
COMM 4310	Social Media Trends & Careers	3
COMM 4325	Applied Public Relations and Event Planning	3
Select one of the following:		3
COMM 3325	Media Relations	
COMM 4322	Social Media Analytics/Measurement	
COMM 4384	Communication Internship	
MKTG 3312	Marketing	3
Select one of the following:		3
ENGL 3310	Editing	
ENGL 3312	Professional Writing and Visual Design	
ENGL 4312 [WI (p. 396)]	Professional Writing and Information Design	
ENGL 4320 [WI (p. 396)]	Writing for Digital Mediums	
Advanced COMM Electives		9
Electives		24
Advanced Electives		6
Total Hours		**69**

Sports Communication

Select one of the following [shared]:		
COMM 1311	Introduction to Speech Communication	
COMM 1315	Public Speaking	
COMM 2302	Business and Professional Speaking	
COMM 1316	Introduction to Photojournalism	3
COMM 2308	Broadcast Production	3
COMM 2311	News Gathering & Writing	3
COMM 2358	Game Day Production	3
COMM 3308	Digital Video Production	3
COMM 3320	Public Relations	3
or COMM 3321	Advertising	
COMM 3350	Sports Communication	3
COMM 3358	Sports Media Production	3
COMM 4310	Social Media Trends & Careers	3
Advanced KINE Electives		6
KINE 4398	Internship - Professional Development	3
KINE 4399	Internship - Field Experience	3
Electives		21
Advanced Electives		6
COMM 4312 [WI (p. 396)]	Communication Theory	3
Total Hours		**69**

Travel, Event and Activity Management

Choose one of the following [shared]:		
COMM 1311	Introduction to Speech Communication	
COMM 1315	Public Speaking	
COMM 2302	Business and Professional Speaking	
COMM 2311	News Gathering & Writing	3

COMM 2325	Event Coordination	3
COMM 3304	Interpersonal Communication	3
or COMM 4339	Teamwork and Decision Making	
COMM 3312	Travel Writing and Blogging	3
COMM 3328 [WI (p. 396)]	Public Relations Writing	3
COMM 3320	Public Relations	3
COMM 3329	Travel & Tourism	3
COMM 4320	Event Planning and Management	3
COMM 4324	Trade Show Planning and Management	3
COMM 4325	Applied Public Relations and Event Planning	3
ENGL 3310	Editing	3
COMM 4384	Communication Internship	3
COMM 4384	Communication Internship	3
Electives		24
Advanced Electives		6
Total Hours		**69**

Bachelor of Applied Arts and Sciences in Communication Studies Program Requirements

General Education Requirements (p. 396)		**42**
COMM 1307	Introduction to Mass Communication	3
Choose 24 hours from advanced COMM courses		24
Choose 12 hours from the following:		12
MKTG 3312	Marketing	
MKTG 3315	Personal Selling	
MKTG 3316	Consumer Behavior	
MKTG 3318	Promotional Strategy	
MGMT 3302	Human Resource Management	
MGMT 3304	Small Business Management	
MGMT 3325	Leadership	
MGMT 3350	Organization Behavior	
MGMT 4307 [WI (p. 396)]	Business Ethics	
Choose 6 hours of Writing Intensive courses:		6
ENGL 3309 [WI (p. 396)]	Professional Writing	
COMM 3328 [WI (p. 396)]	Public Relations Writing	
COMM 4312 [WI (p. 396)]	Communication Theory	
BUSI 3312 [WI (p. 396)]	Business Communication	
Credit for Prior Learning Component:		
Credit for Prior Learning		12-33
General Elective(s)		0-21
Total Hours		**120**

Minor in Communication Studies

COMM Courses	12
Advanced COMM Courses	6
Total Hours	**18**

Professors

- Edwards, Jennifer
- Gearhart, Christopher
- Helvie-Mason, Lora

Associate professors

- Benedict, Elizabeth
- Goen, Karley
- Horton, Cristi
- Winslow, Cessna

Assistant professors

- Holley, Tracey
- Su, Yan, Yan Dr.

Professional Associate Professor

- Stafford, Paul Dr.

Senior Instructor

- Endres-Parnell, Prairie
- Wise, Kirk

Instructors

- Dawson, Winston
- Hinson, Jim
- Lewter, Austin
- Pittman, Rozina

Courses

COMM 1000. TCC Dual Admit. 0 Credit Hours (Lecture: 0 Hours, Lab: 0 Hours).

COMM 1307. Introduction to Mass Communication. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Places mass media in a historical perspective; explores the relationships among media; examines the structure of the American communications system. Analyzes the social, economic, and political implications of modern society's reliance on mass communications. Explores the ways in which the mass media shapes our culture, both past and present.

COMM 1311. Introduction to Speech Communication. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to improve the individual's understanding of the human communication process. Classroom exercises involve the student in interpersonal, small group, and presentational speaking situations requiring critical thinking skills, teamwork, and personal responsibility. Special emphasis on developing communication skills needed to check and validate perceptions, control language usage, and analyze and improve reasoning processes.

COMM 1315. Public Speaking. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introduction to the principles and practice of presentational communication. Methods of topic analysis, research, evidence evaluation, organization, and delivery are covered and assignments require critical thinking skills, teamwork, and personal responsibility. Students participate in several classroom presentations.

COMM 1316. Introduction to Photojournalism. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course introduces photojournalism in a multimedia context. Students will use a variety of devices to communicate stories visually while applying principles of effective photo composition.

COMM 2302. Business and Professional Speaking. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of communication in business and professional organizations. Special emphasis will be given to applying thinking skills, teamwork, and personal responsibility to development of speaking skills, interviewing, team-building skills, and a knowledge of organizational communication.

COMM 2308. Broadcast Production. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will cover on-air performance for both radio and television, audio production, writing for broadcasting, and producing radio and television programming. This course covers media production and broadcasting techniques for radio, television, and podcasts. Students may also be expected to contribute to the programming of Tarleton’s campus radio station.

COMM 2311. News Gathering & Writing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Fundamentals of news writing and reporting. Students will learn basic newspaper style, employ ethical journalism methods, and compose stories using traditional stylebook techniques. Students will learn how to write stories for print, broadcast and online media. Prerequisites: ENGL 1301 and ENGL 1302.

COMM 2322. Survey of Social Media. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
In this course, students will look at the expansion of social media in the public relations field, learn basic strategies and theories of merging social channels with public relations through strategic planning, and practice the development of social media plans and infographics.

COMM 2324. Careers in Communications. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides an introduction to the field of communications and the opportunities available to those who earn a degree in a communications-related discipline. Emphasis is on becoming familiar with different communications careers, professional trends, and skills required of those working in this field. Students will also explore internship opportunities and finding a professional passion. Prerequisite: ENGL 1302.

COMM 2325. Event Coordination. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Fundamentals for professional coordination of special events in various types and styles. Topics focus on event implementation as an essential element of public relations management. Activities center on event logistics, promotions, monitoring, and client liaison.

COMM 2333. Broadcast Journalism. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of broadcast news practices. The basic rules of broadcast news writing will be reviewed and stories will be written and delivered for both radio and television. Studio and newsroom procedures will be examined. Prerequisites: COMM 2311.

COMM 2358. Game Day Production. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This class introduces students to television production processes of a sporting event. Students study broadcast terms, the production planning process, remote location broadcast techniques, and gain experience with a variety of software used to broadcast sporting events. Students will attend a Tarleton sporting event and follow a member of the broadcast production team to better understand the skills needed to produce a live broadcast of a sporting event. Prerequisites: COMM 2308.

COMM 3303. Debate. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introduction to the principles of argumentation and debate. Subject material will include research, evidence, reasoning, case construction, refutation, and delivery. Classroom debating will provide students with opportunities to observe and participate in competitive debating. This course is particularly applicable to those anticipating study in law or related professions. Special emphasis is given to developing communication abilities needed to check and validate perceptions, control language usage, and analyze and improve reasoning processes. Prerequisites: COMM 1311, or 1315, or 2302 or permission of the department head.

COMM 3304. Interpersonal Communication. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A course designed to improve individual communication skills relevant to human relationships. The development and maintenance of interpersonal (one-to-one) relations are examined, with special emphasis on identifying and correcting communication breakdowns. A portion of the course will be devoted to exercises designed to improve interpersonal skills. Prerequisite: COMM 1311, or 1315, or 2302 or permission of the department head.

COMM 3305. Environmental Communication. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to improve students’ understanding of the human communication process in shaping perceptions of and relationships with nature and environmental decision making. Prerequisites: COMM 1311,1315 or COMM 2302.

COMM 3308. Digital Video Production. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduces students to the collaborative process of narrative and non-narrative production while fostering the creation of an individual voice. Students learn the basic techniques and aesthetics of single-camera production, including shot composition, lighting and graphic effects. Students also learn techniques of digital post-production editing.

COMM 3310. Communication Law. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Examines First Amendment case law and state and federal regulations of speech and media. Provides historical and contemporary analyses of the laws of defamation; obscenity; fighting words; and time, place and manner restrictions. Issues such as copyright, privacy, and freedom of information will also be covered. Prerequisite: 3 hours of COMS or approval of department head.

COMM 3311. Feature Writing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This course is a course in our journalism sequence. The class focuses on magazine writing, feature writing, editorial and review writing. The course also focuses on free lance and professional writing and reporting skills. Prerequisites: COMM 2311 or approval of department head.

COMM 3312. Travel Writing and Blogging. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines writing about travel and tourist destinations for different media. The course examines how traveling writing and blogging is done from different perspectives and examines the ethical and practical issues that guide the process. Prerequisite: COMM 2311.

COMM 3313. Community Journalism. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Community Journalism is designed to introduce students to the principles and practices of journalism with a focus on contemporary community-based reporting. This course will explore how journalism can serve local communities by addressing the needs, concerns and interests of residents while also fostering engagement and accountability. Students will develop the skills needed to report on issues that impact local communities, including government, education, public health, and other news, all within the context of ethical journalism practices.

COMM 3314. Generative AI and Communication Technologies & Practices. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course explores the applications and ethical considerations of artificial intelligence (AI), focusing on its impact on communication. Students will work with AI tools such as ChatGPT, MidJourney, and DALL-E. The course will blend theory with hands-on learning, culminating in a final project where students develop an AI-powered communication tool or solution related to their major or professional aspirations.

COMM 3315. Digital Journalism. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course introduces students to the fundamentals of digital journalism, covering emerging trends, multimedia storytelling, social media, audience engagement, data journalism, and ethical considerations. Students will develop the skills necessary to produce, edit, and distribute content across digital platforms while maintaining journalistic integrity and adapting to evolving technologies. This course is designed to prepare students for real-world digital journalism. Prerequisite: COMM 2311.

COMM 3318. News and Magazine Editing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The basics of story placement and layout, copy and style editing. This course would emphasize the role and responsibilities of different editorial departments as well as the overall responsibility of editorial management.

COMM 3320. Public Relations. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introduction to the theory, history, and principles of public relations programs for profit and nonprofit organizations, including media relations, crisis management, ethics, social responsibility, and related topics. Critical analysis of public relations is an integral part of the course as is extensive hands-on volunteer work.

COMM 3321. Advertising. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Analysis of advertising in modern society, including history, design and effects of advertising. Students will study the uses of different media for advertising purposes, working in teams to achieve common goals.

COMM 3323. Political Communication. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Analysis of political campaigns in modern society, including history, design and effects of campaigns. Students will study the uses of different media for campaign purposes, working in teams to achieve common goals.

COMM 3325. Media Relations. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This class offers an analysis of organizational spokespeople in society, including history, ghost writing, and effects of their roles and statements. Students will study the uses of different media for spokesperson purposes, working in teams to achieve common goals. The course allows opportunities for students to think critically about the concepts, implications, and practices of organizational spokespeople. Specifically, students will apply readings and class discussion to participate in team assignments.

COMM 3328. Public Relations Writing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
Study and practice in the techniques of writing and producing public relations materials with an emphasis on creativity and aligning work to targeted publics. Teamwork and portfolio development are integral learning components of the course. Prerequisites: Have a C or better in COMM 2311 and COMM 3320 or permission of instructor.

COMM 3329. Travel & Tourism. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This class covers the way travel and tourism affects the local economy and how Convention & Visitor Bureaus (CVBs) and other local entities "sell" locals and properties to potential customers.

COMM 3332. Intercultural Communication. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of intercultural communication theories and how the impact of culture shapes interpersonal, small group, and public interactions. Students will observe, reflect upon, and analyze intercultural interactions from research and society.

COMM 3340. Persuasion. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of persuasive communication theory in interpersonal, small group, and public settings. Emphasis on audience analysis, ethics, motivational factors, source credibility, compliance gaining and theories of attitude change. Prerequisites: COMM 1311, 1315 or 2302.

COMM 3350. Sports Communication. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course focuses on the role of communication in the sports industry. The class will examine the history of sports journalism and the role of mass media as well as some of the common conceptual models and theories used in sports communication studies. Additionally, the influence of digital, mobile, and social media platforms will be considered, as well as the functions of marketing and public relations. Students will be exposed to a number of issues relating to sports media, careers, legal issues, digital media, and more.

COMM 3358. Sports Media Production. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This class will introduce students to the process of producing digital elements commonly used in sports production. Students learn the Associated Press Broadcast Style, digital graphic preparation, interviewing techniques, and editing styles. Multiple commercial productions will be studied and analyzed. Students will utilize both audio and video digital post-production industry standard software throughout the semester. Prerequisite: COMM 3308.

COMM 3384. Documentary Film. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will examine the history of the international documentary film movement from 1923 to the present. Students will examine a variety of different documentary films from different cultures and time periods.

COMM 4085. Communication Seminar. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 0 Hours).
Content varies according to the needs and desires of the students. When topic varies, course may be taken for credit more than once. Prerequisite: Junior classification or approval of department head.

COMM 4086. Communication Problems. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 0 Hours).
A course featuring independent reading, research, and discussion under the personal direction of an instructor, topics vary according to student need. Open to students of senior classification with department head approval.

COMM 4301. Media Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The course will cover business and sales in a comprehensive media environment, as well as issues such as advertising sales, personnel and budget management, and planning and executing of media programming including documentaries.

COMM 4304. Organizational Communication. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An advanced study of communication as it takes place in contemporary business and industrial settings. Special attention will be given to managerial communication, communicator style, channels and networks, analytical/organizational decision-making, and organizational culture. Prerequisite: COMM 1311 or COMM 1315 or COMM 2302.

COMM 4309. Advanced Reporting. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A capstone course for Journalism students. This course will provide advanced studies for reporting, news writing, newsgathering, interviewing, records evaluation and investigative techniques. Students will be required to submit articles for publication and provide evidence of superior writing skills. Prerequisites: COMM 3310, 3311, and 3318, or with department head approval.

COMM 4310. Social Media Trends & Careers. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Students will explore historical and future-forward perspectives of social media. Students will be introduced to key concepts of social media and will gain hands-on experience exploring social media platforms and trends. Students will practice, experiment and conduct research on social media platforms, looking at ethical perspectives, positive and negative aspects, and current trends and their importance in practice.

COMM 4312. Communication Theory. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
A survey of classical through contemporary communication theory. This course emphasizes communication theories and their application in areas such as organizational, interpersonal, rhetorical, and intercultural communication. Prerequisites: COMM 1311, or 1315, or 2302, or permission of the department head.

COMM 4320. Event Planning and Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Application of public relations processes to the planning and management of special events in various types and styles. Topics include theme development, budgeting, creative design, logistics, promotions, monitoring, client liaison, evaluation, and other relevant aspects of event planning and management. Prerequisite: COMM 2325 or permission of the instructor.

COMM 4322. Social Media Analytics/Measurement. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to introduce students to key concepts of measurement of social networking websites/applications and web analytics. The course will enable students to interact with actual measurement techniques for social networking websites and/or applications and provide students with experiences to critically analyze social networking.

COMM 4324. Trade Show Planning and Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides background and practice in the processes and techniques of trade show planning and management. It applies public relations' four-step process (research, planning, execution, and evaluation) to trade shows. Specifically, students will develop budgets, creative designs, logistics, promotions, and appropriate monitoring and evaluation. Prerequisite: COMM 2325 (B or better).

COMM 4325. Applied Public Relations and Event Planning. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Hands-on application central to the professional practice of public relations and event planning. Emphasis is on collaboration, critical thinking, problem solving, decision-making, client work, portfolio development, and career preparation. Students are encouraged to take this course during their final senior semester. Prerequisites: Must have a C or better in COMM 3320 and COMM 3328 or instructor permission.

COMM 4339. Teamwork and Decision Making. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of work teams, small group theory and processes. Special attention will be given to leadership, organization, group analysis, and interaction. Students will observe and participate in work teams and discussions on contemporary issues regarding teamwork such as virtual work teams. Prerequisite: COMM 1307, 3304, 3310, and at least 6 hours of senior-level COMM.

COMM 4384. Communication Internship. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Approved and supervised work experience in communications related positions. May be repeated once for a total of 6 hours of academic credit. Prerequisites: Junior standing, 12 hours COMM, and approval of the department's appropriate concentration coordinator.

Department of English and Languages

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The Department of English and Languages offers programs leading to Bachelor of Arts degrees in English and Spanish (either with or without secondary educator certification).

The Bachelor of Arts in English offers five different concentrations:

- Literature
- With Teaching Certification
- Public and Professional Writing
- Creative Writing
- Medical and Health Humanities

The Bachelor of Arts in Spanish offers four different concentrations:

- Without Teaching Certification
- With Teaching Certification
- With a focus in Criminal Justice
- With a focus on Translation and Interpretation

In addition, the department offers course sequences leading to academic minors in English, Professional Writing, and Spanish. (For details on the English minor, please consult an advisor or the Department Head.) On the graduate level, the department offers the Master of Arts degree in English. The graduate section of this catalog contains further information about the graduate program (p. 110).

The Bachelor of Arts Degree in English

ENGL 2307 [shared]	Introduction to Creative Writing
ENGL 2320 [shared]	Forms of Literature
or ENGL 2340	Literature and Film
or ENGL 2350	Backgrounds of Western Literature

or ENGL 2360	Monsters in Literature	
or ENGL 2362	Crime Fiction	
or ENGL 2364	Texas Literature	
or ENGL 2366	Death and Dying in Literature	
or ENGL 2368	Comics and Games as Literature	
ENGL 3315 [WI (p. 396)]	Foundations of Literary Research and Analysis	3
ENGL 3308 [WI (p. 396)]	Introduction to Public and Professional Writing	3
ENGL 3370	An Introduction to Linguistics	3
ENGL 3396	Professional Development for English Majors	3
Total Hours		**12**
General Education Requirements (p. 396) [1]		42
ENGL 1301 [shared] [WI (p. 396)]	Composition I	
ENGL 1302 [shared] [WI (p. 396)]	Composition II	
Foreign Language 1411, 1412, 2311, 2312		14
HIST 2321	World Civilizations I	3
or HIST 2322	World Civilizations II	
Total Hours		**59**

Creative Writing

ENGL 3380 [WI (p. 396)]	Intermediate Fiction Workshop	3
ENGL 3382 [WI (p. 396)]	Intermediate Poetry Workshop	3
ENGL 4086	English Problems	3
Select TWO of the following:		6
ENGL 4380	Advanced Fiction Workshop	
ENGL 4382	Advanced Poetry Workshop	
ENGL 3384	Creative Nonfiction Workshop	
ENGL 4390	Special Topics in Creative Writing	
Advanced Literature Elective		12
Elective (6 hours Advanced)		22
Total Hours		**49**

Literature

ENGL 3301 [WI (p. 396)]	Readings in American Literature	3
ENGL 4301 [WI (p. 396)]	Readings in British Literature	3
ENGL 4315 [WI (p. 396)]	Senior Literary Seminar	3
Advanced Literature Electives		12
English Electives		6
Electives (12 hours Advanced)		22
Total Hours		**49**

Medical and Health Humanities

ENGL 3349	Literature of Health, Medicine, and Science	3
ENGL 3368	Rhetoric of Health, Medicine, and Science	3
PBHL 2320	Medical Ethics	3
PBHL 3310	Principles of Health Promotion and Education	3
Select FIVE of the following courses:		15
PHIL 2303	Introduction to Logic	
PHIL 3301	Ethics in the Professions	
PHIL 3304	World Religions: Theory, Origins, & Practices	
PHIL 4305	Environmental Ethics	
PSYC 3307	The Human Lifespan	
SOCI 3304	Medical Sociology	
SOCI 3310	Sociology of Aging	
SOCI 3312	Environmental Sociology	
SOCI 4314	Medical and Health Care Policy	
SOCI 4321	Death and Dying	
SOCW 4313	Human Rights	
SOCW 3303	Cross Cultural Social Work Practice	
PBHL 1310	Health and Society: An Introduction to Public Health	
PBHL 2310	Introduction to Epidemiology	
PBHL 4305	Issues and Trends in Health Care	
PBHL 4320	Public Health Policy	
ENGL 3345	Folklore	
ENGL 3346	New Media Literature and Writing	
ENGL 3372	Sociolinguistics	
ENGL 3384	Creative Nonfiction Workshop	

ENGL 4311 [WI (p. 396)]	Discourse Studies	
ENGL 4340 [WI (p. 396)]	Topics in Public & Professional Writing	
Elective (18 hours Advanced)		22
Total Hours		**49**

Public and Professional Writing

ENGL 3309 [WI (p. 396)]	Professional Writing	3
ENGL 3310	Editing	3
ENGL 3330 [WI (p. 396)]	Advanced Composition	3
ENGL 4311 [WI (p. 396)]	Discourse Studies	3
ENGL 4320 [WI (p. 396)]	Writing for Digital Mediums	3
Select TWO of the following:		6
ENGL 3312	Professional Writing and Visual Design	
ENGL 3320	Advanced Grammar	
ENGL 3346	New Media Literature and Writing	
ENGL 3368	Rhetoric of Health, Medicine, and Science	
ENGL 3372	Sociolinguistics	
ENGL 4312 [WI (p. 396)]	Professional Writing and Information Design	
ENGL 4322 [WI (p. 396)]	Usability Studies in Public and Professional Writing	
ENGL 4340 [WI (p. 396)]	Topics in Public & Professional Writing	
English Elective		6
Electives (12 hours Advanced)		22
Total Hours		**49**

Teacher Certification

ENGL 3301 [WI (p. 396)]	Readings in American Literature	3
ENGL 3320	Advanced Grammar	3
ENGL 4300	Shakespeare	3
ENGL 4301 [WI (p. 396)]	Readings in British Literature	3
ENGL 4311 [WI (p. 396)]	Discourse Studies	3
EDUC 3321 [WI (p. 396)]	Foundations of Teaching: Middle and Secondary Classrooms	3
EDSP 4361	Teaching Strategies for Adolescent Students with Learning Disabilities	3
EDUC 4331	Instructional Strategies for Middle and Secondary Classrooms	3
EDUC 4335	Issues of Professionalism	3
EDUC 4690	Clinical Teaching	6
Select one of the following:		3
PSYC 2308	Child Psychology	
PSYC 3303	Educational Psychology	
CHFS 3300	Child Development: Theory, Research, and Practice	
READ 3351 [WI (p. 396)]	Content Area Literacy	3
English Elective		12
Total Hours		**51**

The Bachelor of Arts Degree in Spanish

General Education Requirements (p. 396) [1]		42
SPAN 1411	Beginning Spanish I	4
SPAN 1412	Beginning Spanish II	4
SPAN 2311	Intermediate Spanish I	3
SPAN 2312	Intermediate Spanish II	3
SPAN 3301	Oral Proficiency in Spanish	3
or SPAN 3302	Spanish for Heritage or Native Speakers	
SPAN 4300 [WI (p. 396)]	Introduction to Spanish Literature and Textual Analysis	3
SPAN 4306	Culture and Civilization of Spain and Latin America	3
SPAN 4307 [WI (p. 396)]	Advanced Spanish Skills and Translation	3
HIST 2321	World Civilizations I	3
HIST 2322	World Civilizations II	3
Select three of the following (one of which must be SPAN 4301 or SPAN 4302): [2]		9
SPAN 4301 [WI (p. 396)]	Survey of Peninsular Literature	
SPAN 4302 [WI (p. 396)]	Survey of Spanish America Literature	
SPAN 4304	The Caribbean Experience	
SPAN 4305	Modernismo	
SPAN 4308 [WI (p. 396)]	The Short Latin American Novel	
SPAN 4310	Spanish Cinema in Context	
Total Hours		**83**

Criminal Justice

Sophomore Literature [shared]		
CRIJ 1301 [shared]	Introduction to Criminal Justice	
CRIJ 1306	Court Systems and Practices	3
CRIJ 1310	Fundamentals of Criminal Law	3
Select one of the following:		3
CRIJ 1313	Juvenile Justice System	
CRIJ 2313	Correctional Systems and Practices	
CRIJ 2314	Criminal Investigation	
CRIJ 2328	Police Systems and Practices	
SPAN 3303	Spanish Grammar in Writing	3
or SPAN 3304	Spanish for Professions	
CRIJ 4326	Criminal Procedure	3
Criminal Justice Advanced Electives		6
Electives (12 hours Advanced)		16
Total Hours		**37**

Literature

Sophomore Literature [shared]		
SPAN 3303	Spanish Grammar in Writing	3
Electives (21 hours Advanced)		34
Total Hours		**37**

Spanish Teacher Certification

ENGL 1301 [shared] [WI (p. 396)]	Composition I	
ENGL 1302 [shared] [WI (p. 396)]	Composition II	
ENGL 2350 [shared]	Backgrounds of Western Literature	
SPAN 3303	Spanish Grammar in Writing	3
EDUC 3321 [WI (p. 396)]	Foundations of Teaching: Middle and Secondary Classrooms	3
EDSP 4361	Teaching Strategies for Adolescent Students with Learning Disabilities	3
EDUC 4331	Instructional Strategies for Middle and Secondary Classrooms	3
EDUC 4335	Issues of Professionalism	3
EDUC 4690	Clinical Teaching	6
Select one of the following:		3
PSYC 2308	Child Psychology	
PSYC 3303	Educational Psychology	
CHFS 3300	Child Development: Theory, Research, and Practice	
READ 3351 [WI (p. 396)]	Content Area Literacy	3
SPAN 4309	Spanish Language Pedagogy	3
Electives		7
Total Hours		**37**

Translation and Interpretation

Sophomore English (shared)		
SPAN 3303	Spanish Grammar in Writing	3
SPAN 3304	Spanish for Professions	3
SPAN 4311	Introduction to Medical Interpretation	3
SPAN 4312	Introduction to Court Interpretation	3
Electives (12 hours advanced)		25
Total Hours		37

Minor in English

ENGL 1301 [WI (p. 396)]	Composition I	3
ENGL 1302 [WI (p. 396)]	Composition II	3
Select one of the following:		3
ENGL 2320	Forms of Literature	
ENGL 2340	Literature and Film	
ENGL 2350	Backgrounds of Western Literature	
ENGL Courses (6 hours must be advanced)		9
Total Hours		**18**

Minor in Spanish

SPAN 1303	Basic Spanish for Vocations	3
or SPAN 1411	Beginning Spanish I	

SPAN 1412	Beginning Spanish II	4
SPAN 2311	Intermediate Spanish I	3
SPAN 2312	Intermediate Spanish II	3
SPAN 3301	Oral Proficiency in Spanish	3
or SPAN 3302	Spanish for Heritage or Native Speakers	
SPAN 3303	Spanish Grammar in Writing	3
Total Hours		**19**

Minor in Technical Writing

ENGL 1301 [WI (p. 396)]	Composition I	3
ENGL 1302 [WI (p. 396)]	Composition II	3
ENGL 3309 [WI (p. 396)]	Professional Writing	3
Sophomore Literature		3
Select two of the following:		6
ENGL 3310	Editing	
ENGL 3312	Professional Writing and Visual Design	
ENGL 4312 [WI (p. 396)]	Professional Writing and Information Design	
ENGL 4320 [WI (p. 396)]	Writing for Digital Mediums	
Total Hours		**18**

Professors

- Dodson, Samuel Dr.
- Quazi, Moumin Dr.
- Shipman, Mark Dr.
- Widmayer, Anne Dr.

Associate professors

- Barrett, Jeanelle Dr.
- Hinson, Katrina Dr.
- Marrugo-Puello, Cecilia Dr.
- Sword, Benjamin Dr.

Assistant professors

- Bond, Elson Dr.
- Brewer, Jacob Dr.
- Downs, Kristina Dr.
- Henderson, Dylan Dr.
- Jacobson, Elliot Dr.
- Jones, William (Hank) Mr.
- Moore, Walter Dr.
- Rogers, Justin Dr.
- Waltrip, Preston Dr.

Instructors

- Abbott, Shannon Ms.
- Bell, Janet Ms.
- Brady-Littlefield, Danielle Ms.
- Cearley, Shannon Ms.
- Cline, Megan Ms.
- Danley, Hayley Ms.
- Davis-Steele, Jill Ms.
- Green, Renae Ms.
- Hilts, Matthew Mr.
- Julian, Natalie Ms.
- LaTouche, Lisa Ms.
- Martin, Jeri Ms.
- Spangler, Joanna Ms.
- Thayer, Stephen Mr.
- Thomas-McNew, Lisa Ms.

English Courses

ENGL 1301. Composition I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
A prerequisite to English 1302, the course introduces students to the various characteristics of writing for academic contexts. Students in English 1301 write about ideas, in particular responding analytically and critically to written sources. The course helps students become familiar with academic audiences, situations, purposes, genres, and some primary conventions (style, arrangement) of those genres. Moreover, students work to develop their own composing processes, particularly for ways of inventing ideas, planning, and revising their texts.

ENGL 1302. Composition II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
A sequel to English 1301, this course introduces students to research in academic contexts. Students address questions such as What is it for? What are its limitations? What are some of its shapes? How does one go about it? The course introduces students to a variety of research methods, systems of documentation, contemporary library resources, and research genres. Among other writing tasks for the course, each student is expected to carry out his/her own research study for possible publication in The Tarleton Freshman Writer. Prerequisite: ENGL 1301.

ENGL 2307. Introduction to Creative Writing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Practical experience in the techniques of imaginative writing. May include fiction, nonfiction, poetry, screenwriting, or drama.

ENGL 2320. Forms of Literature. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A genre-based study of predominantly modern literary works. Students will analyze form and content with particular emphasis on the vocabulary and techniques germane to literature, investigate its attendant treatment as an academic discipline, and explore its aesthetic connections to human experience. Prerequisites: ENGL 1301.

ENGL 2321. British Literature. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A survey of the development of British literature from the Anglo-Saxon period to the present. Students will study works of prose, poetry, drama, and fiction in relation to their historical, linguistic, and cultural contexts. Texts will be selected from a various group of authors and traditions. Prerequisite: ENGL 1301.

ENGL 2326. American Literature. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A survey of American literature from the period of exploration and settlement to the present. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from among a various group of authors for what they reflect and reveal about the evolving American experience and character. Prerequisite: ENGL 1301.

ENGL 2340. Literature and Film. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of styles, components, and techniques of literary genres, with particular attention to the medium of film as it relates to literary expression. Students will be required to source films from streaming services or library resources. Prerequisites: ENGL 1301.

ENGL 2350. Backgrounds of Western Literature. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of major works in translation which provide the foundation for the literary tradition of the modern Western world, emphasizing, but not limited to, the Ancient World, the Middle Ages, and the Renaissance. Prerequisite: ENGL 1301.

ENGL 2360. Monsters in Literature. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines monsters and concepts of monstrosity as represented and engaged in literary and creative works. May include studies of popular monsters such zombies, vampires, etc., examining how these forms often function as metaphors for societal anxieties. Or, it may focus on more conceptual monsters such as villains and villainy. Students will analyze form and content with particular emphasis on the vocabulary and techniques germane to literature and explore conceptual and aesthetic connections to human experience. Prerequisites: ENGL 1301.

ENGL 2362. Crime Fiction. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines representations and explorations of crime in literary and creative works. Specifically, it will focus on popular crime genres (such as detective fiction, mysteries, procedural or forensic thrillers, legal dramas) in a variety of literary forms. Students will analyze form and content with particular emphasis on the vocabulary and techniques germane to literature and explore conceptual and aesthetic connections to human experience. Prerequisite: ENGL 1301.

ENGL 2364. Texas Literature. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines Texas and its peoples and cultures as represented and engaged in literary and creative works. May include studies of such genres as frontier literature, Borderlands literature, and cowboy poetry to showcase the complexity and diversity of the state. Will focus primarily on Texan authors, but may incorporate external representations of Texas and the American West. Students will analyze form and content with particular emphasis on the vocabulary and techniques germane to literature and explore conceptual and aesthetic connections to human experience. Prerequisites: ENGL 1301.

ENGL 2366. Death and Dying in Literature. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines representations and explorations of death and dying as well as health, wellness, and medicine in literary and creative works. Specifically, it will focus on how imaginative literature prepares us to encounter, understand, and shape concepts related to human well-being. Students will analyze form and content with particular emphasis on the vocabulary and techniques germane to literature and explore conceptual and aesthetic connections to human experience. Prerequisite: ENGL 1301.

ENGL 2368. Comics and Games as Literature. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines how the forms of comics and games (both digital and analog) function as works of literature. Specifically, it will focus on these forms not only utilize the same literary techniques but also individual elements of these forms alter traditional notions of the literary. The course will explore concepts such as the creative interaction of text and image, participatory narrative and rhetoric, and interactivity and meaning. Students will analyze form and content with particular emphasis on the vocabulary and techniques germane to literature and explore conceptual and aesthetic connections to human experience. Prerequisites: ENGL 1301.

ENGL 3195. Written Discourse Theory and Application. 1 Credit Hour (Lecture: 1 Hour, Lab: 0 Hours).
Students will receive instruction and training in written discourse theory and practice as appropriate and necessary preparation for tutoring in the University Writing Center and/or the English and Languages Department Language Arts Lab. Students must receive prior approval to enroll. Prerequisites: ENGL 1301, 1302, 3 hours sophomore ENGL, and approval of Writing Program Director and Writing Center Directors.

ENGL 3301. Readings in American Literature. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This course will provide a targeted survey of American literature. This survey will cover multiple literary movements within the tradition of American literature, from its inception to current day. It will focus on relevant authors, historic and cultural contexts, and prominent genres and forms from these selected movements. Prerequisites: ENGL 1302, and 3 hours ENGL sophomore literature.

ENGL 3307. Introduction to Medical Humanities. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will introduce students to the key critical concepts, debates, and questions of practice in the interdisciplinary field of medical humanities. Students will draw on the humanities to analyze topics related to how humans experience and interpret health, wellness, illness, disease and disability via the humanities and social sciences. Topics to be considered may include narrative medicine, disability studies, chronic illness, graphic medicine, health activism, mortality, and healthcare systems. The course will also provide a history of the field of medical humanities as well as discuss current and future trends and career paths.

ENGL 3308. Introduction to Public and Professional Writing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This introductory course explores the theory and practice of professional writing and rhetoric in relation to other disciplines. The course aims to introduce students to key rhetorical and writing concepts and their application in varied contexts.

ENGL 3309. Professional Writing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This course will prepare students for a variety of careers as they familiarize themselves with the practices necessary in their disciplinary areas. Throughout this course, students will learn writing strategies and tactics used in professional settings, skills they will need in order to write successfully on the job. Students will engage with the writing process as they research, draft, edit, revise, and design a variety of professional documents that may include technical reports, proposals, manuals, employment documents or other professional correspondence. This is a writing intensive course. Prerequisites: ENGL 1302.

ENGL 3310. Editing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Study of general editorial techniques in formats, graphics, and layout and design methods in technical publications. This course is designed to strengthen your writing, editing, and visual design skills through attention to detail and application of style, grammar, and usage principles. Prerequisites: ENGL 1302, ENGL 3309 or permission of instructor.

ENGL 3312. Professional Writing and Visual Design. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The purpose of this course is to introduce students to the principles and practices of visual design in professional writing. This course will examine the integration of graphic components into professional documents that may be encountered in varied workplace settings. Students develop skills needed to interpret and create visuals that support the context of their professional documents. Students will learn to use the Adobe Creative Suite and MS Office to compose and design graphics as part of this course. This course also introduces foundations of visual literacy and visual rhetoric as needed to create and shape visual messages in varied contexts. Prerequisites: ENGL 1302, ENGL 3309 or permission from instructor.

ENGL 3315. Foundations of Literary Research and Analysis. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
An introduction to the skills, practices, and perspectives that inform literary research and analysis. The course explores how careful reading, close textual analysis, and creative and informed research methodology culminate in cogent and substantive critical essays about literary texts. The course includes discussion of the formal conventions of major literary genres as well as discussion of concepts such as relationships of literary texts to histories and cultures, the formation of canons, literary movements, and theoretical perspectives that inform literary analysis. This course is required only for majors. May be taken concurrently with other advanced English literature courses. Prerequisites: ENGL 1302.

ENGL 3320. Advanced Grammar. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introduction to the grammatical structure of modern English at the level of word, clause, and discourse presented through the application of the principles of descriptive grammars, accompanied by a review of current prescriptive grammars. Prerequisites: ENGL 1302.

ENGL 3330. Advanced Composition. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
Students will examine the rhetoric of composition through intensive writing workshops and close reading of composition-related texts. The goals of the course are (1) to discover and define some coherent relations between rhetoric and composition; (2) to challenge the students' presuppositions about essayistic space through a process of peer- and instructor-reviewed writing workshops. Prerequisites: ENGL 1302 or prior approval of department head.

ENGL 3342. Popular Genres of Literature. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This course provides an exploration into a popular literary genre or genres. These genres could include classical genres such as epics or contemporary genres such as Westerns and mysteries. Special attention will be given to the combination of content and form which constitute these works as well as how the genres change as their cultures change. Student will gain an understanding of literary tradition and of the way in which authors speak to their times, and to all times. Prerequisites: ENGL 1302, and 3 hours ENGL sophomore literature.

ENGL 3344. Readings in World Literature. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This course will provide a targeted survey of World literature. This survey will cover multiple literary movements outside the common British and American traditions, from the ancient world to current day. It will focus on relevant authors, historic and cultural contexts, and prominent genres and forms from these selected movements. Prerequisites: ENGL 1302, and 3 hours ENGL sophomore literature.

ENGL 3345. Folklore. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will survey the principal genres of folklore including folktales, personal narratives, legends, jokes, craft, foodways, rituals, and festivals. It will focus on the role folklore plays in the everyday lives of people around the world. Students will analyze the ways that traditions reflect a group's values, beliefs, fears, and desires. Students will use folklore as a means of understanding other cultures and reflect on traditions and practices in their own lives. Prerequisites: ENGL 1302, and 3 hours ENGL sophomore literature.

ENGL 3346. New Media Literature and Writing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides a survey and examination of new media literature and writing. Specifically, it will focus on issues relevant to the impact of new media on literature and other forms of writing. Literature may include forms such as digital literature, graphic novels, video games, and/or other literary forms which experiment with medium and writing topics. Course may include topics such as the transmission of texts and the impact of technology on writing, reading, and publishing. Prerequisites: ENGL 1302, and 3 hours ENGL sophomore literature.

ENGL 3347. Literatures of the United States. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will study literary texts, authors, and genres from one or more groups in the United States. Analysis will focus on culturally specific and cross-cultural questions. Prerequisites: ENGL 1302, and 3 hours ENGL sophomore literature.

ENGL 3349. Literature of Health, Medicine, and Science. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will study literary texts, authors, genres, and topics related to the fields of health, medicine, and science. The course will examine the prevalence of these issues in texts, ranging from the classical to the contemporary as well. It will include major literary as well as creative nonfiction form. This course will focus on how these texts creatively engage important issues such as death/dying, healthcare, pandemics, medical crises, medical research, and representations of health care and medical professionals. Prerequisites: ENGL 1302, and 3 hours ENGL sophomore literature.

ENGL 3368. Rhetoric of Health, Medicine, and Science. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Medical rhetoric and science writing are valued within a variety of professions including but not limited to health, medicine, the environment, engineering, law as well as journalism and professional writing. This course explores scientific, technical, and medical communication through the rhetorical lens. Students will investigate the communicative processes through which information is produced and disseminated among health and medical professionals, scientists, government agencies, and the general public. In this course, students not only explore the genres and conventions that are used to communicate scientific, technical, and medical knowledge among various audiences, but will also examine the rhetorical strategies and persuasive techniques used. This course is designed for students pursuing careers in medicine and health-related fields as well as English majors interested in learning how to write more effectively for these areas. Students will be encouraged to adapt assignments to their specific area(s) of subject matter interest and to share and discuss their work in class Prerequisites: ENGL 1302, and ENGL 3308 or ENGL 3309 or permission of the instructor. 3308 or 3309 can be taken concurrently.

ENGL 3370. An Introduction to Linguistics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of descriptive linguistics revealing the nature and scope of the characteristics and complexities of human language. Much of the course consists of learning the phonology, morphology, syntax, semantics, and pragmatics of modern English. Attention will also be focused on the nature and variety of the rule-bound creativity underlying the tacit systematic use of human language. Prerequisites: ENGL 1302.

ENGL 3372. Sociolinguistics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course offers an in-depth view of the English language as it is applied globally by native and non-native speakers alike. This course concentrates on issues of identity, nationalism, dialect, and language change. Texts will be discussed and examined in an attempt to understand the power of not only English, but of language in general. Much of the reading is designed to introduce students to the terminology of sociolinguistics in addition to the scientific method of study as it pertains to the social sciences. No prior knowledge of linguistics is necessary. Prerequisite: ENGL 1302.

ENGL 3380. Intermediate Fiction Workshop. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This course provides an in-depth workshop focused on writing fiction. Students will read and discuss examples of published fiction as well as write original fictional pieces. Significant portions of this course will be devoted to workshopping student work. Prerequisite: ENGL 2307 or permission of instructor.

ENGL 3382. Intermediate Poetry Workshop. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This course provides an in-depth workshop focused on writing poetry. Students will both read and discuss examples of published poetry and write original poems. Significant portions of this course will be devoted to workshopping student work. Prerequisite: ENGL 2307 of permission of the instructor.

ENGL 3384. Creative Nonfiction Workshop. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides an in-depth workshop focused on writing creative nonfiction. Students will both read and discuss examples of published creative nonfiction and write original creative nonfiction pieces. Significant portions of this course will be devoted to workshopping student work. Prerequisite: ENGL 2307 or permission of the instructor.

ENGL 3386. Literary Editing and Publishing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course focuses on the history, principles and practices of editing and publishing literary writing. Provides an introduction to acquisition and copy editing as well as production processes. Specialized concepts covered could include genre publishing, literary magazine editing, and digital and web publishing. Prerequisite: ENGL 1302.

ENGL 3390. Readings in Young Adult Literature. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides a survey of literature for young adults. Readings will include both classics and contemporary selections from multiple genres. The course will be concerned with increasing student understanding of unique aspects of young adult literature as well as applied critical and scholarly analysis to the texts. Prerequisites: ENGL 1302, and 3 hours ENGL sophomore literature.

ENGL 3396. Professional Development for English Majors. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course explores professional opportunities for English majors in terms of additional graduate study and entering the professional workforce. It will consider the role of the English major in the professional world and instruct students how to develop and market their skills to meet the needs of postgraduate world. In addition to producing necessary career and job application documents, students will write professional development plan designed to help them prepare to enter the workforce or a graduate program.

ENGL 4086. English Problems. 1-3 Credit Hours (Lecture: 0 Hours, Lab: 1-3 Hours).
A course featuring independent reading, research, and discussion under personal direction of instructor, topics to vary according to student need. Open to students of senior classification with prior approval of department head.

ENGL 4300. Shakespeare. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An in depth study of representative types of Shakespeare's drama and poetry. Credit for both ENGL 4300 and DRAM 4300 will not be awarded. Prerequisites: ENGL 1301, 1302, and 3 hours ENGL sophomore literature.

ENGL 4301. Readings in British Literature. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This course will provide a targeted survey of British literature. This survey will cover multiple literary movements within the tradition of British literature, from approximately 700 CE to current day. It will focus on relevant authors, historic and cultural contexts, and prominent genres and forms from these selected movements. Prerequisites: ENGL 1302, and 3 hours ENGL sophomore literature.

ENGL 4303. Major Literary Schools, Movements, and Genres. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An advanced study of a specific major literary school, movement or genre. Prerequisites: ENGL 1302, and 3 hours ENGL sophomore literature.

ENGL 4304. Major Authors. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An advanced study of the work of one major author or two connected authors. Prerequisites: ENGL 1302, and 3 hours ENGL sophomore literature.

ENGL 4311. Discourse Studies. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This course offers advanced study in the theory, nature, and practice of written discourse. Special emphasis is given to helping students investigate language theoretically as a background for their own professional and personal use. Prerequisites: ENGL 1302.

ENGL 4312. Professional Writing and Information Design. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
Advanced study of professional writing with a focus on information design and continued practice and use of computer applications in professional settings for the publication of a range of document genres. This course develops an emphasis on information design specifically framed around quantitative data to build quantitative literacy skills alongside the other rhetorical skills necessary for success in the workplace. Prerequisites: ENGL 1302 and ENGL 3309 or permission of Instructor. ENGL 3309 can be taken concurrently.

ENGL 4315. Senior Literary Seminar. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This course offers an opportunity for students to engage in an intensified, focused, well-defined study. Possibilities include the examination of a particular writer, groupings of writers, a specific geographic region, and/or literary criticism. Prerequisites: ENGL 1301, 1302, and 3 hours ENGL sophomore literature.

ENGL 4320. Writing for Digital Mediums. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
Advanced study of and practice in writing for digital mediums with a primary focus on planning, designing, and composing professional documents for digital distribution through websites, blogs, other social media or digital methods. Prerequisites: ENGL 1302, ENGL 3309 or permission from instructor.

ENGL 4322. Usability Studies in Public and Professional Writing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This course presents the basic theory and professional views on design and usability as they relate to professional writing contexts. The emphasis is on the human-document interface whether that interface is technological or print. What makes a well-designed document, website, blog, etc. versus a poorly designed one? Understanding how the end-user actually uses the document requires an understanding of people as much as it does the design of the document. Students explore concepts, methods, and techniques related to usability, usability testing and human factors in document design and other professional writing contexts including digital artifacts. Prerequisites: ENGL 1302, and ENGL 3309 or permission from the instructor.

ENGL 4335. Film Studies. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of movies both as dramas - involving plot, characterization, theme, etc. - and as artistic productions - involving shots, cuts, and other film techniques. Other aspects of film criticism are covered. Prerequisites: ENGL 1301, 1302, and 3 hours ENGL sophomore literature.

ENGL 4340. Topics in Public & Professional Writing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
Writing in the professions is multidisciplinary and varied. Topics in this course will vary each semester and will explore the agency and responsibility inherent in writing for a wide variety of contexts and persuasive outcomes. Topics may include humor studies, risk communication, argumentation, content strategy, and storytelling in professional contexts. This course will require students to explore real-world situations and their writing needs, in addition to researching current issues and problems as they are addressed in a written context. Prerequisites: ENGL 1302, and ENGL 3309 or permission from instructor.

ENGL 4344. Topics in Medical and Health Humanities. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This course will explore specialized topics and issues in medical and health humanities. This course will provide an in-depth examination of the intersection between arts and human uncertainties of medical care in practice. Possible topics include: narrative medicine; graphic medicine; bioethics, biotechnologies, cross cultural health communication, humor in health related narratives and communication, etc. Prerequisite: ENGL 1302 and ENGL 3308 (can be taken concurrently) or permission of instructor.

ENGL 4360. Advanced Studies in Secondary English. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This course applies the standards of the National Council of Teachers of English to the curriculum of secondary English. It provides an intensive review of composition principles, language conventions, literary genres, and computer instructional technology. Prerequisites: ENGL 1301, 1302, and 3 hours sophomore ENGL.

ENGL 4380. Advanced Fiction Workshop. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An advanced course in writing fiction for students already accomplished in the genre. Students will read and discuss examples of published fiction and write original fictional pieces. Significant portions of this course will be devoted to workshopping student work. Prerequisite: ENGL 3380.

ENGL 4382. Advanced Poetry Workshop. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An advanced course in writing poetry for students already accomplished in the genre. Students will both read and discuss examples of published poetry and write their own poems. Significant portions of this course will be devoted to workshopping student work. Prerequisite: ENGL 3382.

ENGL 4390. Special Topics in Creative Writing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An advanced study of a special topic in creative writing. Topics could include analysis of and writing in a specific specialized genre or form; they could also include issues related to the production and distribution of creative writing. Prerequisite: ENGL 3380 or 3382 or 3384.

Spanish Courses

SPAN 1303. Basic Spanish for Vocations. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Instruction and practice in understanding and speaking basic colloquial Spanish encountered in a particular occupational context such as farming, ranching, or law enforcement. May be taken for elective credit and may also satisfy specified program requirements.

SPAN 1411. Beginning Spanish I. 4 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
Introduction to the Spanish language for communication following the American Council on Teaching Foreign Languages (ACTFL) guidelines at the novice mid-level. Applies the four-skills approach of reading, writing, listening, and speaking. Integrated classroom instruction and electronic language lab. Lab fee: $2.

SPAN 1412. Beginning Spanish II. 4 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
Continuation of four-skills introduction to the Spanish language for communication following the American Council on Teaching Foreign Languages (ACTFL) guidelines at the novice-high level. Applies the four-skills approach of reading, writing, listening, and speaking. Integrated classroom instruction and electronic language lab. Prerequisite: SPAN 1411 or equivalent as approved by department head. Lab fee: $2.

SPAN 2311. Intermediate Spanish I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Continuation of four-skills introduction to the Spanish language for communication following the American Council on Teaching Foreign Languages (ACTFL) guidelines at the intermediate-mid level. Applies the four-skills approach of reading, writing, listening, and speaking. Prerequisite: SPAN 1412.

SPAN 2312. Intermediate Spanish II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Continuation of four-skills introduction to the Spanish language for communication following the American Council on Teaching Foreign Languages (ACTFL) guidelines at the intermediate-high level. Applies the four-skills approach of reading, writing, listening, and speaking. Prerequisite: SPAN 2311.

SPAN 3300. Hispanic Culture Study Abroad. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Study of modern day cultural manifestations and practices; study of representative art works, including architectural ones. Cultural immersion experience in Spain or Latin America, wherever Spanish study abroad is conducted.

SPAN 3301. Oral Proficiency in Spanish. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Discussions of relevant cultural and social issues in Spanish, with increased emphasis on understanding native Spanish and responding to it. Either SPAN 3301 or SPAN 3302 will be counted toward degree, not both. Prerequisites: SPAN 2312 or equivalent and approval of program coordinator.

SPAN 3302. Spanish for Heritage or Native Speakers. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Study of writing skills for heritage or native speakers, addressing spelling, structure, and the differentiation of colloquial Spanish from formal or standard Spanish. Either SPAN 3301 or SPAN 3302 will be counted toward degree, not both. Prerequisites: SPAN 2312 or equivalent and approval of program coordinator.

SPAN 3303. Spanish Grammar in Writing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Development of writing skills in Spanish and analysis of key elements of Spanish grammar as a tool for efficient writing. Expansion of Spanish vocabulary as a tool for writing in a variety of contexts. Prerequisite: SPAN 2312.

SPAN 3304. Spanish for Professions. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Development of oral and writing skills in Spanish within a practical professional context. This course will give students Spanish skills to work in business, legal and criminal justice environments. Prerequisite: SPAN 3301 or SPAN 3302, either may be taken concurrently.

SPAN 4084. Internship in Spanish. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 1-6 Hours).
Preapproved and supervised work experience in a Spanish related position with a public or private business organization. May be repeated for a total of six credit hours. Prerequisites: Spanish major with degree plan on file, SPAN 4307, and approval of Spanish coordinator. A minimum of 40 hours of training is required for each hour of academic credit. A maximum of six hours of credit may be earned. A written report or other artifact of the experience may be required.

SPAN 4086. Spanish Problems. 1-3 Credit Hours (Lecture: 0 Hours, Lab: 1-3 Hours).
A course featuring independent reading, research, and discussion under personal direction of the instructor. Topics vary according to student needs. Prerequisites: Either SPAN 3301 or SPAN 3302; and 3303, and approval of department head.

SPAN 4300. Introduction to Spanish Literature and Textual Analysis. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
Introduction to the study of Hispanic Literature; the study of narrative, poetic and dramatic genres; and textual commentary and analysis. Overview of literary movements in Spanish and Latin American Literature. Pre-requisite: SPAN 3303 and 3301 / 3302 (or approval of instructor). Prerequisites: SPAN 3303 and SPAN 3301 / SPAN 3302 (or approval of instructor).

SPAN 4301. Survey of Peninsular Literature. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
An overview of the literature and literary movements of Spain. Commentary and analysis of Spanish texts from the "Poema del Mio Cid" to the 20th century. Prerequisite: SPAN 4300.

SPAN 4302. Survey of Spanish America Literature. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
An overview of the literature and literary movements of Spanish America. Commentary and analysis of Spanish American texts from the chronicles of the conquistadors to the 20th century. Prerequisite: SPAN 4300.

SPAN 4304. The Caribbean Experience. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course studies the Hispanic Caribbean: Cuba, The Dominican Republic and Puerto Rico, in its many cultural dimensions. We will survey the historic background of these three Caribbean islands and study a sample of their literary production. Prerequisites: SPAN 4300.

SPAN 4305. Modernismo. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course studies Spanish American Modernismo as a literary generation and as a product of the end of the nineteenth century. Included in the study will be poetry, fiction, and essays from various Modernista writers. Prerequisites: SPAN 4300.

SPAN 4306. Culture and Civilization of Spain and Latin America. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An historical and cultural overview of Spain and Latin America. Major historical events and manifestations that have shaped the Spanish and Latin American culture and civilizations are studied. This course is an introduction to the cultural, historical, and sociopolitical realities of Spain and Latin America. Prerequisites: (SPAN 3301 or SPAN 3302) and (SPAN 3303 or SPAN 3304); or approval of instructor.

SPAN 4307. Advanced Spanish Skills and Translation. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This course provides practice of both speaking and writing in the Spanish language, as well as translation and interpretation skills. The language functions will be practiced at the advanced level required for the Texas Oral Proficiency Test (TOPT). Prerequisites: (SPAN 3303 or SPAN 3304) and (SPAN 3301 or SPAN 3302).

SPAN 4308. The Short Latin American Novel. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This course studies some important short Latin American novels, with a main focus in the 20th century. To have a better understanding of these narratives, the historical background of some Latin American countries during this time period will be discussed. Prerequisite: SPAN 4300.

SPAN 4309. Spanish Language Pedagogy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The course provides a theoretical background on the currents methods of teaching Spanish as a second language. The course presents the basic concepts of second language acquisition. Prerequisite: SPAN 4307.

SPAN 4310. Spanish Cinema in Context. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An exploration of Spanish cinema from the perspective of the historical context of the film narrative and of the film production itself. Attention will be given to the directors and the place they hold in Spanish cinema and in cinema as an art form. Prerequisite: SPAN 3303 or SPAN 3304.

SPAN 4311. Introduction to Medical Interpretation. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Overview of interpretation-related techniques to work in U.S. healthcare institutions. This course focuses on studying different healthcare settings and systems, medical terminology and commonly used abbreviations, as well as frequently encountered conditions and treatment options. Students will also gain a good basic overview of related background information and cross-cultural issues in community languages. Prerequisite: SPAN 3303.

SPAN 4312. Introduction to Court Interpretation. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to cover applicable principles and techniques of court interpreting in U.S. judicial institutions. It includes an overview of the history of the profession, the role of the interpreter in the judiciary setting and key topics such as remote interpreting and police interpreting. Prerequisite: SPAN 3303.

Government, Legal Studies, and Philosophy

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The Department of Government, Legal Studies, and Philosophy offers programs of study leading to Bachelor of Arts and Bachelor of Science degrees in the areas of Political Science and Legal Studies. In addition, the department offers minor programs of study in Legal Studies, Philosophy, Political Science, and Public Policy.

Political Science

The department offers programs of study leading to a Bachelor of Arts or a Bachelor of Science degree in Political Science. These major programs of study will prepare graduates to engage civically at all levels of society and government. Graduates will think critically, write effectively, and research competently, using state of the art technology. Program topics include comparative methodology, international politics, political philosophy, and research methods. Students seeking a Bachelor of Arts degree take a 14-unit sequence in a foreign language of their choice. Students also select from a variety of elective options guided by their concentration. There are two concentrations in Political Science: the Accelerated concentration leading to the Masters of Public Administration and the Self-Designed concentration, which gives students maximum freedom to personalize their degree.

Program Competencies

Upon successful completion of the Political Science program, graduates will be able to:

1. Analyze, synthesize, and evaluate political concepts and systems by using the major analytic and theoretical frameworks in several sub-fields of political science.
2. Write effectively about significant political processes, events, and concepts; articulate diverse political ideas; and critique the arguments of others using appropriate logic and evidence.
3. Utilize electronic databases, statistical software, electronic option polls, and other discipline-specific technology to perform research and analysis.

Program Concentrations

Self-Designed concentration

The Bachelor of Arts or Bachelor of Science degree with a Self-Designed concentration allows students the freedom of selecting from a wider variety of Political Science elective options. Students will take the same series of required field of major courses and may then choose an additional 7 or 8 Political Science courses from the 3000 and 4000 levels to expand their knowledge in all the sub-disciplines within Political Science.

Accelerated to Non-Thesis MPA concentration

The Bachelor of Arts or Bachelor of Science degree with the Accelerated concentration allows students to complete a Bachelor's degree in Political Science and a Master's degree in Public Administration in just five (5) years. Students will take two courses (6-credit hours) in the Master's in Public Administration during their senior year and then transition to the graduate program to complete the remaining 10 courses (30-credit hours). The graduate courses taken during the bachelor's degree will do double-duty, counting toward both the bachelor's degree and the master's degree credit requirements, saving the student time and money!

The Bachelor of Arts Degree in Political Science

General Education Requirements (p. 396)		**42**
ENGL 1301 [shared] [WI (p. 396)]	Composition I	
ENGL 1302 [shared] [WI (p. 396)]	Composition II	
HIST 1301 [shared]	United States History I	
HIST 1302 [shared]	United States History II	
GOVT 2305 [shared]	Federal Government (Federal Constitution and Topics)	
GOVT 2306 [shared]	Texas Government (Texas Constitution and Topics)	
MATH 1342 [shared]	Elementary Statistical Methods	
POLS 2304	Introduction to Political Science	3
POLS 3308 [WI (p. 396)]	International Politics	3
POLS 3311	Political Philosophy I	3
POLS 3312	Political Philosophy II	3
POLS 3314	Comparative Politics	3
POLS 3316	Political Science Research Methods	3
POLS 4350 [WI (p. 396)]	Political Science Research Design	3
POLS 4390 [WI (p. 396)]	Political Science Capstone Course	3
Foreign Language 1411, 1412, 2311, 2312		14
Total Hours		**80**

Accelerated (Non-Thesis Students Only)

Political Science Advanced Electives		15
Master of Public Administration Courses - Select two of the following:		6
MAPA 5300	Public Administration	
MAPA 5301	Organizational Behavior in the Public Sector	
MAPA 5302	Human Resource Management in the Public Sector	
MAPA 5315	Budgeting and Financial Management for Public and Nonprofit Organizations	
MAPA 5331	Public Policy Formulation and Analysis	
Electives (6 credit hours must be advanced)		19
Total		40

Self-Designed

Political Science Advanced Electives		21
Electives (6 credit hours must be advanced)		19
Total Hours		**40**

The Bachelor of Science Degree in Political Science

General Education Requirements (p. 396) [1]		**42**
ENGL 1301 [shared] [WI (p. 396)]	Composition I	
ENGL 1302 [shared] [WI (p. 396)]	Composition II	
HIST 1301 [shared]	United States History I	
HIST 1302 [shared]	United States History II	
GOVT 2305 [shared]	Federal Government (Federal Constitution and Topics)	
GOVT 2306 [shared]	Texas Government (Texas Constitution and Topics)	
MATH 1342 [shared]	Elementary Statistical Methods	
Major Requirements		
POLS 2304	Introduction to Political Science	3
POLS 3308 [WI (p. 396)]	International Politics	3
POLS 3311	Political Philosophy I	3
POLS 3312	Political Philosophy II	3
POLS 3314	Comparative Politics	3
POLS 3316	Political Science Research Methods	3
POLS 4350 [WI (p. 396)]	Political Science Research Design	3
POLS 4390 [WI (p. 396)]	Political Science Capstone Course	3
SOCI 3330	Social Science Statistics	3
Total Hours		**69**

Accelerated (Non-Thesis Students Only)

Political Science Advanced Elective		18
Master of Public Administration Electives: Select two of the following:		6
MAPA 5300	Public Administration	
MAPA 5301	Organizational Behavior in the Public Sector	
MAPA 5302	Human Resource Management in the Public Sector	
MAPA 5315	Budgeting and Financial Management for Public and Nonprofit Organizations	
MAPA 5331	Public Policy Formulation and Analysis	
General Electives (3 credit hours must be advanced)		27
Total Hours		**51**

Self-Designed

Political Science Advanced Electives		24
General Electives (3 credit hours must be advanced)		27
Total Hours		**51**

Legal Studies

The department offers a program of study leading to a Bachelor of Arts or Bachelor of Science degree in Legal Studies. It is designed for students who want to work in the legal profession or in fields that require a deeper understanding of our legal system. As a result, this program is oriented around the critical job functions of competent and ethical professionals working in the legal services industry. Each course has been strategically selected and designed to deliver the knowledge, skills, and values necessary to enter the workforce upon graduation or to continue studies in graduate or law school.

Program Competencies

At the conclusion of the Legal Studies program, graduates will be able to:

1. Prepare documents necessary for representation of clients in a legal matter, including correspondence, litigation, transactional, and advisory materials.
2. Perform legal and factual research, utilizing appropriate resources for locating and communicating findings.
3. Demonstrate an understanding of and appreciation for discipline-specific technology, including, but not limited to case management, time management and billing, legal research, and trial presentation.

4. Demonstrate civic skills and appropriate civic dispositions and behaviors.
5. Analyze personal and professional situations, and then evaluate and select the behavioral option which most closely conforms to the ethical rules regulating the legal profession.

Program Concentrations

Pre-Law concentration

Admission to law school is based primarily upon a student's performance on the Law School Admission Test (LSAT) and cumulative grade point average (GPA). Students with any undergraduate major may be admitted to law school; however, the Pre-Law concentration provides a broad-based, interdisciplinary curriculum designed to develop logical reasoning, rhetoric, analysis, critical thinking, and writing skills, which are critical for students planning to pursue continuing studies in law or other graduate areas.

Paralegal Studies concentration

The Paralegal concentration is designed for students who have logical and analytical minds, possess organizational skills, and thrive on attention to detail. Paralegals may not provide legal services directly to the public, except as permitted by law; however, working as part of a legal team under the supervision of an attorney, paralegals perform tasks vital to the success of a case, including drafting legal documents, interviewing witnesses and clients, preparing trial exhibits, and analyzing documents.

Program Policies

Students must have a minimum of 21-credits of *legal specialty* courses taken either at Tarleton State University or by approved credit transfer. A *legal specialty* course is a LEGL course that covers substantive law or legal procedures or process, has been developed for paralegals, emphasizes practical paralegal skills, and meets the American Bar Association's instructional methodology requirements. The following courses have been designated as *legal specialties*:

- LEGL 2330, Introduction to Legal Studies
- LEGL 3332, Legal Ethics
- LEGL 3340, Legal Research & Writing
- LEGL 3350, Professional Practices in Law
- LEGL 3388, Civil Procedure
- LEGL 4084/4382, Internship/Virtual Internship
- LEGL 4390, Legal Studies Capstone

Credit for equivalent LEGL courses considered *legal specialties* under the ABA Guidelines is accepted for students transferring from paralegal programs, whether the transferring institution is ABA-approved or not. If a student has earned credit from an institution that is not ABA-approved, the Legal Studies coordinator will review the course description, course syllabus, and contact the program coordinator of the transferring institution, if needed, before approving the credit transfer for equivalent LEGL courses. A maximum of 21-credit hours will be accepted for equivalent LEGL courses.

Bachelor of Arts Degree in Legal Studies

General Education Requirements (p. 396)		**42**
ENGL 1301 [shared] [WI (p. 396)]	Composition I	
ENGL 1302 [shared] [WI (p. 396)]	Composition II	
Choose one of the following [shared]:		
COMM 1311	Introduction to Speech Communication	
COMM 1315	Public Speaking	
COMM 2302	Business and Professional Speaking	
Choose one of the following [shared]:		
MATH 1314	College Algebra	
MATH 1324	Math for Business & Social Sciences I (Finite Mathematics)	
MATH 1332	Contemporary Mathematics I	
MATH 1342	Elementary Statistical Methods	
MATH 2412	Precalculus Math	
MATH 2413	Calculus I	
ECON 2301 [shared]	Principles of Macroeconomics	
GOVT 2305 [shared]	Federal Government (Federal Constitution and Topics)	
GOVT 2306 [shared]	Texas Government (Texas Constitution and Topics)	
Foreign Language 1411, 1412, 2311, 2312		14
Major Required Courses		
ENGL 3309 [WI (p. 396)]	Professional Writing	3
LEGL 2330	Introduction to Legal Studies	3
LEGL 3332	Legal Ethics	3
LEGL 3340 [WI (p. 396)]	Legal Research & Writing	3
LEGL 3388	Civil Procedure	3
LEGL 4301 [WI (p. 396)]	Constitutional Law	3
LEGL 4390 [WI (p. 396)]	Legal Studies Capstone Course	3
LEGL 3350	Professional Practices in Law	3
Choose one of the following:		3
CRIJ 3315	Rules of Criminal Evidence	
CRIJ 4326	Criminal Procedure	
BLAW 4333	Business Law II	
BLAW 4334	Employment Law	
BLAW 4384	International Business Law	
LEGL 4344	Tort Law	
LEGL 4350	Family Law	
LEGL 4346	Texas Wills, Estates, and Probate	

LEGL 4348	Sports and Entertainment Law	
LEGL 4352	Agriculture Law	
POLS 3305	Legislation	
POLS 3309	The Judiciary	
LEGL 4110	Civic Engagement	1
Electives (9-hours must be advanced)		21
Total Hours		**105**

Paralegal Studies Concentration

LEGL 4084	Paralegal Internship	3-6
or LEGL 4382	Virtual Paralegal Internship	
Select four:		12
CRIJ 3315	Rules of Criminal Evidence	
CRIJ 4326	Criminal Procedure	
BLAW 4333	Business Law II	
BLAW 4334	Employment Law	
BLAW 4384	International Business Law	
LEGL 4344	Tort Law	
LEGL 4346	Texas Wills, Estates, and Probate	
LEGL 4348	Sports and Entertainment Law	
LEGL 4352	Agriculture Law	
LEGL 4350	Family Law	
POLS 3305	Legislation	
POLS 3309	The Judiciary	
Total Hours		**15**

Pre-Law Concentration

Choose five of the following:		15
PHIL 2303	Introduction to Logic	
COMM 3303	Debate	
ENGL 4311 [WI (p. 396)]	Discourse Studies	
POLS 3311	Political Philosophy I	
POLS 3312	Political Philosophy II	
CRIJ 3315	Rules of Criminal Evidence	
CRIJ 4326	Criminal Procedure	
BLAW 4333	Business Law II	
BLAW 4334	Employment Law	
BLAW 4384	International Business Law	
LEGL 4344	Tort Law	
LEGL 4346	Texas Wills, Estates, and Probate	
LEGL 4348	Sports and Entertainment Law	
LEGL 4350	Family Law	
LEGL 4352	Agriculture Law	
POLS 3305	Legislation	
POLS 3309	The Judiciary	
Total Hours		**15**

Bachelor of Science Degree in Legal Studies

General Education Requirements (p. 396)		**42**
ENGL 1301 [shared] [WI (p. 396)]	Composition I	
ENGL 1302 [shared] [WI (p. 396)]	Composition II	
Choose one of the following:		
COMM 1311 [shared]	Introduction to Speech Communication	
COMM 1315 [shared]	Public Speaking	
COMM 2302 [shared]	Business and Professional Speaking	
ECON 2301 [shared]	Principles of Macroeconomics	
GOVT 2305 [shared]	Federal Government (Federal Constitution and Topics)	
GOVT 2306 [shared]	Texas Government (Texas Constitution and Topics)	
Choose three of the following for the Math Sequence:		9
MATH 1314	College Algebra	
MATH 1324	Math for Business & Social Sciences I (Finite Mathematics)	
MATH 1325	Math for Business & Social Sciences II (Business Calculus)	
MATH 1316	Plane Trigonometry	
MATH 2412	Precalculus Math	
MATH 2413	Calculus I	
Major Required Courses		

ENGL 3309 [WI (p. 396)]	Professional Writing	3
LEGL 2330	Introduction to Legal Studies	3
LEGL 3332	Legal Ethics	3
LEGL 3340 [WI (p. 396)]	Legal Research & Writing	3
LEGL 3350	Professional Practices in Law	3
LEGL 3388	Civil Procedure	3
LEGL 4301 [WI (p. 396)]	Constitutional Law	3
LEGL 4390 [WI (p. 396)]	Legal Studies Capstone Course	3
Choose two of the following:		6
CRIJ 3315	Rules of Criminal Evidence	
CRIJ 4326	Criminal Procedure	
BLAW 4333	Business Law II	
BLAW 4334	Employment Law	
BLAW 4384	International Business Law	
LEGL 4344	Tort Law	
LEGL 4346	Texas Wills, Estates, and Probate	
LEGL 4348	Sports and Entertainment Law	
LEGL 4352	Agriculture Law	
LEGL 4350	Family Law	
POLS 3305	Legislation	
POLS 3309	The Judiciary	
Electives (9-hours must be advanced)		24
Total Hours		**105**

Paralegal Concentration

LEGL 4084	Paralegal Internship	3-6
or LEGL 4382	Virtual Paralegal Internship	
Select four of the following: [1]		9-12
CRIJ 3315	Rules of Criminal Evidence	
CRIJ 4326	Criminal Procedure	
BLAW 4333	Business Law II	
BLAW 4334	Employment Law	
BLAW 4384	International Business Law	
LEGL 4344	Tort Law	
LEGL 4346	Texas Wills, Estates, and Probate	
LEGL 4348	Sports and Entertainment Law	
LEGL 4350	Family Law	
LEGL 4352	Agriculture Law	
POLS 3305	Legislation	
POLS 3309	The Judiciary	
Total Hours		**15**

Pre-Law Concentration

Choose five of the following:		15
PHIL 2303	Introduction to Logic	
COMM 3303	Debate	
ENGL 4311 [WI (p. 396)]	Discourse Studies	
POLS 3311	Political Philosophy I	
POLS 3312	Political Philosophy II	
CRIJ 3315	Rules of Criminal Evidence	
CRIJ 4326	Criminal Procedure	
BLAW 4333	Business Law II	
BLAW 4334	Employment Law	
BLAW 4384	International Business Law	
LEGL 4084	Paralegal Internship	
LEGL 4344	Tort Law	
LEGL 4346	Texas Wills, Estates, and Probate	
LEGL 4348	Sports and Entertainment Law	
LEGL 4350	Family Law	
LEGL 4352	Agriculture Law	
Total Hours		**15**

Minor in Legal Studies

The department also offers a minor in Legal Studies. The minor in Legal Studies can add value to your degree by 1) supplementing studies in another discipline, 2) providing an introduction to the skills and knowledge needed in law school, and 3) enhancing your understanding about legal issues that impact our nation, state, and communities.

PHIL 2303	Introduction to Logic	3
LEGL 2330	Introduction to Legal Studies	3
LEGL 3332	Legal Ethics	3
LEGL 3340 [WI (p. 396)]	Legal Research & Writing	3
LEGL 3388	Civil Procedure	3
Select one:		3
CRIJ 3315	Rules of Criminal Evidence	
CRIJ 4326	Criminal Procedure	
BLAW 4333	Business Law II	
BLAW 4334	Employment Law	
BLAW 4384	International Business Law	
POLS 3305	Legislation	
POLS 3309	The Judiciary	
Total Hours		**18**

Minor in Political Science

The department also offers a minor in Political Science. A minor in Political Science can compliment many types of majors with additional knowledge about the ways in which governments and political processes affect such subjects. Students can also develop valuable analytical skills and enhance their abilities to be knowledgeable and politically engaged citizens at the local, State, and Federal levels.

GOVT 2305	Federal Government (Federal Constitution and Topics)	3
GOVT 2306	Texas Government (Texas Constitution and Topics)	3
Advanced Electives in Political Science		12
Total Hours		**18**

Minor in Philosophy

Philosophy courses foster improved analysis and problem solving skills while teaching clear writing and critical thought. Philosophy focuses on training students to ask the right questions, and some philosophy courses will satisfy the Language, Philosophy, and Culture or Social and Behavioral Sciences components of the core curriculum.

The minor in Philosophy is designed for students who want to supplement their academic major with a program that develops breadth of understanding and clarity of thought. Made up of 18-credit hours of philosophy (PHIL) course work, this minor makes an excellent supplement for students interested in the humanities or those seeking careers in law, medicine, military service, and pastoral ministry.

PHIL 1301	Introduction to Philosophy	3
PHIL 2303	Introduction to Logic	3
Choose 12 hours from the following (6 hours must be advanced):		**12**
PHIL 1304	Introduction to World Religions	
PHIL 3301	Ethics in the Professions	
PHIL 3304	World Religions: Theory, Origins, & Practices	
PHIL 3309 [WI (p. 396)]	History of Christianity and Christian Thought to the Reformation	
PHIL 3311	Political Philosophy I	
PHIL 3312	Political Philosophy II	
PHIL 4086	Problems in Philosophy	
PHIL 4305	Environmental Ethics	
PHIL 4385	Philosophy Seminar	
Total Hours		**18**

Department Head

- O'Dell, Dr. Amy

Professor

- Styron, Dr. Kelli

Associate professors

- Aho, Dr. Karl
- Cogley, Dr. Nathaniel
- Hallgarth, Dr. Matthew
- Morrow, Dr. Eric
- Velasco, Dr. Jesus

Assistant professors

- Blount, Dr. Doug
- Forman, John Rhett Dr.
- Kabala, Dr. Boleslaw
- O'Dell, Dr. Amy
- Reynolds, Dr. Marcie
- Thompson, Dr. Casey

Instructor

- Anderson, Mr. Andrew
- Strawn, Randall Bruce Mr.

Adjunct Instructor

- Farley-Parker, Dr. Ann
- Gable, Ms. Lori
- Jasieniecki, Ms. Carol

General Studies Courses

GSTU 3301. Wicked Problems. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will consider wicked problems—problems are irreducibly social and cannot be solved merely through scientific approaches. Prerequisite: Junior status.

GSTU 3340. Civic Advocacy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will help students find connections between local, state, and federal governance and their personal and professional lives. Topics include government regulation of particular professions, grassroots advocacy, voting & elections, and others. Students will explore interest groups and other ways to advocate at all levels of government. Prerequisite: GOVT 2305, GOVT 2306, ENGL 1301, and ENGL 1302.

GSTU 3350. Law & Society. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will explore current social issues such as affirmative action, reproductive rights, civil rights, and religious freedom from a legal perspective to understand how laws impact and are impacted by society. Students will consider their own role and that of society in the creation, enforcement, interpretation, and modification of our laws. Prerequisite: GOVT 2305, GOVT 2306, ENGL 1301, and ENGL 1302.

GSTU 3398. Career Skills. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This course is the prerequisite to the General Studies Capstone course (GSTU 4398) and focuses on developing core skills to prepare students for their respective future careers. The course will teach interview skills, resume writing, research methods, teamwork skills, personal marketability, and communication skills. Prerequisite: Must be General Studies major.

GSTU 4398. General Studies Capstone Course. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This course requires students to integrate and use fundamental concepts learned in previous courses within the students' degree concentrations including research and analysis of real-world phenomena and problems. Students will work in teams, and students will present written reports on their research, supplemented by appropriate internet and multimedia materials, as well as portfolios documenting their research. Prerequisite: Approved degree plan for Bachelor of Science in General Studies program.

Government Courses

GOVT 2305. Federal Government (Federal Constitution and Topics). 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course covers the origin and development of the U.S. Constitution, structure and powers of the national government including the legislative, executive, and judicial branches, federalism, political participation, the national election process, public policy, civil liberties and civil rights.

GOVT 2306. Texas Government (Texas Constitution and Topics). 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course covers the origin and development of the Texas constitution, structure and powers of state and local government, federalism and inter-governmental relations, political participation, the election process, public policy, and the political culture of Texas.

International Studies Courses

INTL 4075. Study Abroad. 3-6 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Students will participate in a study abroad experience of at least 3 weeks in length. The purpose of a study abroad experience is to observe, document, research, and reflect upon a culture other than the participant's own culture. It will require participants to analyze and evaluate experiences and engage in personal growth. It will also challenge participants to think critically about the host country and the participant's own identity. Student can receive a maximum of 6 credits. Prerequisite: Junior or senior status; 2.0 GPA.

Legal Studies Courses

LEGL 2330. Introduction to Legal Studies. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides an introduction to the study of law and the many opportunities available within the legal services industry. Emphasis is placed on the judicial system and its role within the state and federal governments, the importance of judicial opinions including how to read, understand, and summarize case law, an introduction to legal research and writing, and an overview of the ethical obligations, regulations, professional trends, and skills required of those working in this field. This course is a legal specialty. Prerequisite: ENGL 1301.

LEGL 3331. Legal History. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduction to the Anglo-American legal tradition. Particular attention paid to legal documents such as Magna Carta, The English Bill of Rights, and the Organic Laws of the United States, and jurists such as Blackstone, Marshall, and Holmes. Prerequisite: GOVT 2305, GOVT 2306.

LEGL 3332. Legal Ethics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to expose students to the major ethical problems they may face as part of a legal team. The focus of the course is the ABA Model Code and Model Rules of Professional Conduct. The course also addresses the role of non-lawyers in the delivery of legal services and the various professional codes of ethics which provide guidance to non-lawyers. Emphasis will be placed on related codes of civility, the attorney-client privilege and work product doctrine, proper handling of legal fees and client property, as well as the disciplinary process. This course is a legal specialty.

LEGL 3340. Legal Research & Writing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This course provides an introduction to the fundamentals of legal research and writing. After an overview of the various primary and secondary sources, students will invest significant time in hands-on practice using the most common legal sources in print and electronic form. Emphasis will also be placed on properly evaluating, communicating, and attributing findings within the legal genre. This course is a legal specialty. Prerequisite: ENGL 1301, ENGL 1302, LEGL 2330.

LEGL 3350. Professional Practices in Law. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will continue to develop the professional skills and dispositions necessary for students to be competitive in a changing legal profession. Course topics will include emerging technology, critical interpersonal skills, formation of a professional identity, and the positive role that members of the legal profession have played, and continue to play, in our neighborhoods, towns, and communities. Prerequisite: LEGL 2330.

LEGL 3388. Civil Procedure. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines the theory and practical aspects of basic civil litigation, including preliminary investigation, pleadings, motions, discovery, trials, and appeals. Emphasis will be placed on the requirements and restrictions of the Federal Rules of Civil Procedure which apply throughout the United States; however, individual distinctions of the Texas Rules of Civil Procedure will be raised. Prerequisite: LEGL 2330, ENGL 1302.

LEGL 4084. Paralegal Internship. 3-6 Credit Hours (Lecture: 3-6 Hours, Lab: 0 Hours).
This course provides students with an external learning experience. Students will work in law offices, corporations, and other industries involved in the delivery of legal services. Students are required to work approximately forty (40) hours for each credit attempted for a minimum of 120-140 hours per 3-units. This course is a legal specialty. Prerequisites: LEGL 2330, LEGL 3332, LEGL 3340, LEGL 3388 and junior or senior status.

LEGL 4086. Problems. 1-3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Independent reading, research, and discussion. Entry into this course will be arranged with a Legal Studies faculty advisor.

LEGL 4110. Civic Engagement. 1 Credit Hour (Lecture: 1 Hour, Lab: 0 Hours).
The legal profession is a public service. This course is intended to allow students entering the legal profession to explore the many ways of being civically engaged in their communities, state, and nation. Successful completion of this course makes students eligible for one Applied Learning Experience (ALE) credit. Prerequisite: Junior or Senior status.

LEGL 4301. Constitutional Law. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
An introduction to the principles of American constitutionalism, specifically, the prerogatives of American political institutions. The subject is approached by close study of the documents which outline these principles, the four Organic Laws of the United States, Supreme Court cases, and political speeches. Prerequisites: GOVT 2305, HIST 1301, and HIST 1302; or approval of the instructor.

LEGL 4344. Tort Law. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides a comprehensive overview of civil wrongs (torts). Students will learn the three major categories of torts: intentional torts, negligence, and strict liability. Emphasis will be placed on understanding the elements of various civil claims (causes of action) within each category as well as common defenses. Students will also gain practice at legal analysis, the skill of evaluating the evidence to determine what, if any, claims would be supported. Prerequisite: LEGL 2330.

LEGL 4346. Texas Wills, Estates, and Probate. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course deals with transfers of property, including intestate succession, probate administration, execution and revocation of wills, the use of trusts in estate planning, and rules of construction that affect will and trust drafting. The course also will cover community property laws and basic estate tax and gift tax principles. Relevant Texas Estates Code and Uniform Probate Code statutes will be used in addition to a textbook. This course is a legal specialty. Prerequisite: LEGL 2330.

LEGL 4348. Sports and Entertainment Law. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course deals with an introduction to many fields of law. These are copyright law, publicity and privacy law, First Amendment law, trademark law and contract law. Sports and Entertainment law impacts many different business types such as film, television, music, professional sports, and live theatre. While there are many similarities, the differences can be overwhelming and an introduction to these business types will be covered. Relevant Universal Commercial Code, Title 17 of the United States Code, and the Lanham Act will be used in addition to the textbook. Prerequisite: LEGL 2330.

LEGL 4350. Family Law. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course introduces students to the procedural and substantive law affecting the family and domestic relations. The law affecting prenuptial agreements, separation, divorce, annulments, spousal support, alimony, spousal abuse, custody, child support, and adoption is also discussed. Emphasis is placed on the preparation of relevant legal documents and procedures for various court filings. Prerequisite: LEGL 2330, LEGL 3340.

LEGL 4352. Agriculture Law. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides an introduction to the many areas of law that interconnect with agriculture and agribusiness. Unlike the traditional approach of studying a single area of law (such as contracts or property), students will spend significant time learning to diagnose a particular industry need or problem in order to accurately identify the applicable area of law (property, water use, oil and gas, administrative law, intellectual property, food safety, clean energy, and environmental). The course will also investigate legal career opportunities within the agri-industry. Prerequisite: LEGL 2330 or Junior Status.

LEGL 4382. Virtual Paralegal Internship. 3 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
This course provides students with a series of simulated, experiential learning environments which give students an interactive law office environment suitable for the development and refinement of competencies needed for the real-world legal workplace. The simulation modules are supplemented with exercises and instruction geared toward preparing students for the transition from the academic environment to the workplace. Prerequisite: LEGL 2330, LEGL 3332, LEGL 3340, LEGL 3388.

LEGL 4385. Legal Studies Seminar. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Specialized legal studies course on emerging or foundational legal topics. May be taken more than once as topics will vary.

LEGL 4390. Legal Studies Capstone Course. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This course will serve as a culminating experience where students will demonstrate proficiency in legal analysis and expand their repertoire of documents within the legal genre to include more sophisticated and complex documents such as appellate briefs, multi-issue legal office memoranda, and memoranda in support of a motion. This course is a legal specialty. Prerequisites: LEGL 2330, LEGL 3332, LEGL 3340, LEGL 3388.

Philosophy Courses

PHIL 1301. Introduction to Philosophy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the writings of major philosophical authors.

PHIL 1304. Introduction to World Religions. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A comparative study of world religions, including but not limited to Hinduism, Buddhism, Judaism, Christianity, and Islam.

PHIL 2303. Introduction to Logic. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will introduce the student to the basic principles and concepts of formal logic, formal and informal fallacies, deductive and inductive reasoning, truth tables, symbolic notation, Venn diagrams, and the logic of scientific method. It will also include consideration of the philosophical foundations of logic.

PHIL 2308. Ethics of Patient Care. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course introduces students to ethical issues inherent to the relationship between the patient and caregivers or healthcare practitioners. The course explores these concerns through engagement with philosophical concepts of personhood through reading transformational texts and connects those concepts to practical scenarios.

PHIL 3301. Ethics in the Professions. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will consider both the responsibilities inherent in a profession as such and some of the specific ethical dilemmas that arise in particular professions: business, science, engineering, military, education, medicine, etc. Prerequisite: Junior classification.

PHIL 3304. World Religions: Theory, Origins, & Practices. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the philosophical, ethical, and social dimensions of the religions of the world. Focuses on major religions but lesser known ones may be included. The course will emphasize the variation in religious experiences and traditions. Credit for both PHIL 3304 and RELI 3304 will not be awarded.

PHIL 3309. History of Christianity and Christian Thought to the Reformation. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
An overview of the history of Christianity and Christian thought from founding to the beginnings of the Reformation with particular attention to major themes, movements, events, leaders, and developments within their social, cultural and political contexts. The course also offers an introduction to the central ideas and debates that have shaped the historical development of Christian theologies, practices, and institutions. Credit for PHIL, RELI, and HIST 3309 will not be awarded.

PHIL 3311. Political Philosophy I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Philosophical ideas concerning basic political problems from the Classical Period through the Renaissance. Credit for both PHIL 3311 and POLS 3311 will not be awarded. Prerequisite: PHIL 1301 or GOVT 2305 or POLS 2304 or approval of the instructor.

PHIL 3312. Political Philosophy II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Philosophical ideas concerning basic political problems since the Early Modern period. Credit for both PHIL 3311 and POLS 3312 will not be awarded. Prerequisite: PHIL 1301 or GOVT 2305 or POLS 2304 or approval of the instructor.

PHIL 4086. Problems in Philosophy. 1-3 Credit Hours (Lecture: 0 Hours, Lab: 1-3 Hours).
Independent reading, research, and discussion. Entry into this course will be arranged with the instructor and department head.

PHIL 4305. Environmental Ethics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An inquiry into how humans ought to relate to nature, including questions about the moral standing of animals and other non-human beings, environmental justice, and what we may owe to future generations. In addition to exploring universal ethical issues concerning our relationships with the environment, the course will also consider exemplary American and Texan nature writers.

PHIL 4385. Philosophy Seminar. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An examination of major philosophical issues and theories. May be repeated for credit as topic varies. Prerequisite: Junior classification or approval of department head.

Political Science Courses

POLS 2304. Introduction to Political Science. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introduction to the discipline of political science, with particular emphasis devoted to its development in the modern era. Topics include degree concentrations available in the program, types of political institutions, uses of political science, participation by political scientists in public affairs and public policy, an introduction to research and writing in the discipline, political theory and other discipline theories, and career options available to political science majors. Prerequisites: ENGL 1301 and sophomore standing or approval of the instructor.

POLS 3301. Political Economy of Globalization. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This class introduces students to the political system that manages the global economy. The class looks at theoretical approaches to economic conflict and cooperation, global trade, and global finance. Students will also study problems associated with the global economic system including poverty, inequality, and environmental externalities. Prerequisite: GOVT 2305 or GOVT 2306 or POLS 2304 or ECON 1301 or ECON 2301 or ECON 2302 or approval of the instructor.

POLS 3302. Elections and Political Parties. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of the electoral process in American national, state, and local political systems. Emphasis will be placed on the evolution of the structure and functions of political parties, interest groups, the news media, and other participants in the electoral process. Prerequisite: GOVT 2305 or approval of the instructor.

POLS 3303. Comparative State and Local Government and Politics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Variations and similarities in the practice of politics and in the administration of government in the states. Particular attention is given to local government and state-national relations. Prerequisite: GOVT 2306 or approval of the instructor.

POLS 3304. The Executive. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of the organization of executive power in American national, state, and local systems. Emphasis will be placed on the evolution of the structure and functions of the Presidency of the United States and national, state, and local bureaucracies, and the role of parties, legislatures, courts, interest groups, and other participants in the executive process. Prerequisite: GOVT 2305 or approval of the instructor.

POLS 3305. Legislation. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of the legislative process in American national, state, and local political systems. Emphasis will placed on the evolution of the structure and functions of the Congress and the state legislatures, and the role of executives, courts, parties, interest groups, and other participants in the legislative process. Prerequisite: GOVT 2305 or approval of the instructor.

POLS 3307. Principles of Public Administration. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introductory course in public administration and PA theory. Credit cannot be awarded for both PUAD 3301 and POLS 3307. Prerequisite: GOVT 2305.

POLS 3308. International Politics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This course introduces students to concepts and theories of international politics. It covers the evolution of the contemporary nation-state system, the role of international governmental institutions, and conflict and cooperation among states. Prerequisites: POLS 2304 or Junior standing or approval of the instructor.

POLS 3309. The Judiciary. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of the organization of the judiciary in American national, state, and local systems. Emphasis will be placed on the structure and function of the courts, plus the roles of the executive and legislative branches in selecting judges and checking the power of the courts, and the roles played by interest groups and others in influencing the courts. Prerequisite: GOVT 2305 or approval of the instructor.

POLS 3310. Environmental Policy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
An introduction to the politics of environmental protection in America. The focus of the course is upon domestic environmental policy with particular attention paid to traditional media - air, water, and hazardous waste. Prerequisite: GOVT 2305.

POLS 3311. Political Philosophy I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Philosophical ideas concerning basic political problems from the Classical period to the Renaissance. Credit for both PHIL 3311 and POLS 3311 will not be awarded. Prerequisite: PHIL 1301 or GOVT 2305 or POLS 2304 or approval of instructor.

POLS 3312. Political Philosophy II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Philosophical ideas concerning basic political problems since the Early Modern period. Credit for both PHIL 3312 and POLS 3312 will not be awarded. Prerequisite: PHIL 1301 or GOVT 2305 or POLS 2304 or approval of instructor.

POLS 3314. Comparative Politics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course introduces students to the politics of several nations in Europe, Africa, Latin America, and the Middle east. The course focuses on the analysis of major political developments in the post- World War II era leading to the present. Topics discussed include: the legacy of the past, governing structures and processes, and contemporary political debates. Prerequisites: POLS 2304 or Junior standing or approval of the instructor.

POLS 3316. Political Science Research Methods. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course introduces students to the process of conducting research in the social sciences. Material will focus on developing research questions and extrapolating hypotheses from them, correctly and accurately reviewing prior relevant literature and how/when to cite it, applying qualitative and quantitative methods, finding sources of data and developing a case study, understanding the IRB process. Prerequisites: POLS 2304.

POLS 3323. Political Communication. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Analysis of political campaigns in modern society, including history, design and effects of campaigns. Students will study the uses of different media for campaign purposes, working in teams to achieve common goals.

POLS 4084. Internship. 3-6 Credit Hours (Lecture: 0 Hours, Lab: 16-30 Hours).
Application and integration of academic study and development of skills in a field setting. Field projects include direction of a political campaign, internship in a city or county administrative office, or in a not-for-profit organization for analyzing or carrying out governmental policy. Minimum of 200 hours of work required for 3 hours of credit. Prerequisites: 2.5 overall grade point average, advanced standing, and approval of department head. Field experience fee $50.

POLS 4086. Problems. 1-3 Credit Hours (Lecture: 0 Hours, Lab: 1-3 Hours).
Independent reading, research and discussion. Entry into this course will be arranged with the political science counselor.

POLS 4301. Constitutional Law. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
An introduction to the principles of American constitutionalism, specifically, the prerogatives of American political institutions. The subject is approached by close study of the documents which outline these principles, the four Organic Laws of the United States, Supreme Court cases, and political speeches. Prerequisites: GOVT 2305, HIST 1301, and HIST 1302; or approval of the instructor.

POLS 4302. Constitutional Law II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
The origin and development of constitutional prohibitions as shown by leading U.S. Supreme Court decisions on civil rights, contracts, due process, economic regulation, eminent domain, labor relations, obscenity, political utterance, and religion. Prerequisite: POLS 4301.

POLS 4306. European Politics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Comparative examination of European politics and government, with particular attention to the European Union and policy processes at the nation-state and EU levels. This course may be conducted either as a regular seminar on campus or as part of a study-abroad opportunity. Students who take the course on campus may repeat it once for credit as a study-abroad opportunity, or vice versa. Prerequisites: POLS 2304 or Junior standing or approval of the instructor.

POLS 4307. Nationalism. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Examination of theories of nationalism and national identity, origins of ethno-centric conflict, and impacts of national identity on political issues. Prerequisite: POLS 2304 or Junior standing or approval of the instructor.

POLS 4308. Politics of Latin America. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides an analysis of contemporary political issues, economic development, militarism, and democratization in Latin America. In attempting to explain these phenomena, the course will focus on the shaping influences and the impact of external powers in shaping political events in the region. Prerequisites: POLS 2304 or Junior standing or approval of the instructor.

POLS 4309. Politics of the Middle East. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course focuses on the history and politics of the Middle East in the 20th century. Specifically, this course will analyze such critical political, social, intellectual, and economic themes as colonialism, Arab nationalism, secular modernism, military conflict, the rise of political Islam, the status of women, and the oil revolution. Prerequisites: POLS 2304 or Junior standing or approval of the instructor.

POLS 4312. Religion and Politics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
An examination of the major theories of the relationship of religion and politics and a survey of this relationship in the United States with a focus on religious liberty, church-state relations, and religious advocacy. Additional focus on Christian-majority states in Europe and the Americas and Muslim-majority states and the relationship of Islam and government, as well as critical contemporary issues. Students cannot receive credit for both POLS 4312 and RELI 4312. Prerequisites: POLS 2304 or PHIL 3304 or RELI 3304 or Junior standing or approval of the instructor.

POLS 4313. East and South Asian Politics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
Government organization and functions, political processes, and major developments in the political systems of Japan, China, Korea, India, Pakistan, and other states in East and South Asia from the 20th century to the present. Prerequisites: POLS 2304 or Junior standing or approval of the instructor.

POLS 4314. African Politics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This course introduces students to the major political issues and dynamics in sub-Saharan Africa, including traditional political systems, the effects of colonialism, political culture, public policy, the role of the military, domestic conflict, corruption, institutionalization, democratization, development, foreign aid, and regional integration. Prerequisite: Junior or Senior status or POLS 2304.

POLS 4315. Foreign Policy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of America's role in the modern world. Particular emphasis is placed on the policy makers, for example, the President, Congress, the State Department, and the Department of Defense, and on external factors such as other nations. Prerequisite: GOVT 2305 or POLS 3308 or approval of the instructor.

POLS 4318. US-Mexico Relations. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will address the main contemporary issues of US-Mexico Relations such as immigration, drug trafficking, commerce, security, border relations. Its purpose is to offer an overview on the major issues of the bilateral relations, and discuss critically the literature assigned. Its main goal is to explain the nature of the bilateral relations and the major challenges currently being faced. The course does not presume significant prior knowledge of Mexico, the United States, or bilateral relations, but some knowledge on Mexican and American history would be useful. This course would be of interest to history, political science, and sociology students. Prerequisite: GOVT 2305, HIST 1301.

POLS 4340. US Public Policy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides an overview of the development of public policy in the United States and offers students the opportunity to understand this process in relation to their research interests. A major research project on a specific policy issue is developed over the course of the term. Credit will not be awarded for both POLS 4340 and POLS 5340. Prerequisite: GOVT 2305 or approval of the instructor.

POLS 4350. Political Science Research Design. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
Building on the material in Political Science Research Methods (POLS 3316), this course will focus on finalizing a plan for students to research their chosen question. By the end of the course, students will have produced a research proposal in preparation for the Capstone course (POLS 4390) where students will conduct their research and write up the results. Prerequisites: POLS 2304, POLS 3316, and junior status.

POLS 4385. Political Science Seminar. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Independent reading, research, discussion, and paper writing, under personal direction of instructor. Prerequisite: POLS 2304 or GOVT 2305 or approval of the instructor. May be taken more than once for credit.

POLS 4390. Political Science Capstone Course. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This course requires students to integrate and use fundamental concepts learned in previous political science courses to research and analyze real-world political phenomena and problems. Students will present oral and written reports on their research, supplemented by appropriate internet and multimedia materials, as well as portfolios documenting their research. Prerequisite: POLS 3316 and POLS 4350.

Religious Studies Courses

RELI 1301. Survey of the Old Testament. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A survey of the historical background and basic teachings of the Old Testament and its influence in the ancient world.

RELI 1302. Survey of the New Testament. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A survey of the historical background and basic teachings of the New Testament and its influence in the ancient world.

RELI 3304. World Religions: Theory, Origins, & Practices. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the philosophical, ethical, and social dimensions of the religions of the world. Focuses on major religions but lesser known ones may be included. The course will emphasize the variation in religious experiences and traditions. Credit for both PHIL 3304 and RELI 3304 will not be awarded.

RELI 3309. History of Christianity and Christian Thought to the Reformation. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
An overview of the history of Christianity and Christian thought from founding to the beginnings of the Reformation with particular attention to major themes, movements, events, leaders, and developments within their social, cultural and political contexts. The course also offers an introduction to the central ideas and debates that have shaped the historical development of Christian theologies, practices, and institutions. Credit will not be awarded for more than one of the following courses: PHIL 3309, HIST 3309, and RELI 3309.

RELI 4312. Religion and Politics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
An examination of the major theories of the relationship of religion and politics and a survey of this relationship in the United States with a focus on religious liberty, church-state relations, and religious advocacy. Additional focus on Christian-majority states in Europe and the Americas and Muslim-majority states and the relationship of Islam and government, as well as critical contemporary issues. Students cannot receive credit for both POLS 4312 and RELI 4312. Prerequisites: GOVT 2305 and GOVT 2306.

Department of History, Geography and GIS

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The Department of History, Geography and GIS is dedicated to preparing its majors for a variety of careers. We establish a firm foundation of knowledge and understanding that prepares students for industry, academia, administrative and policy positions in the government at all levels, and helping all students to become knowledgeable and productive citizens and leaders in their communities through the Core Curriculum and our upper level offerings. Our mission is achieved through the coordination of the disciplines in the department.

History

The Bachelor of Arts Degree in History offers courses with a variety of topics taught by exceptional faculty. The degree provides students with exciting opportunities to explore how historians investigate, analyze, and write about history. The focus is on critical thinking and writing, as history is about solving problems, investigating mysteries, and writing clearly and persuasively. The skills gained in this program can be applied in nearly any career. Concentrations within the degree allow some students to pursue certification in secondary education through completion of Tarleton's Teacher Education Program as part of their coursework. The strength of this program is evident in the quality of students and faculty. From scholarly publications with major presses to excellence in the classroom, the program faculty offers a wide range of specializations, quality instruction, and mentoring in research, and conference presentations. Students have opportunities to engage in many activities from research and presentations related to courses, study abroad and away programs, campus student organizations, internships, area opportunities in local and public history, and much more.

Bachelor of Arts Degree in History Program Requirements

General Education Requirements (p. 396) [1]		42
ENGL 1301 [shared] [WI (p. 396)]	Composition I	
ENGL 1302 [shared] [WI (p. 396)]	Composition II	
Sophomore Literature [shared]		
Choose one of the following [shared]:		
MATH 1314	College Algebra	
MATH 1324	Math for Business & Social Sciences I (Finite Mathematics)	
MATH 1332	Contemporary Mathematics I	
MATH 1342	Elementary Statistical Methods	
MATH 2412	Precalculus Math	
MATH 2413	Calculus I	
HIST 2321	World Civilizations I	3
HIST 2322	World Civilizations II	3
HIST 3340	Historical Methods	3
HIST 4390 [WI (p. 396)]	History Capstone	3
Select 1 of the following Writing Intensive courses:		3
HIST 4313	A People's History of the United States	
HIST 3310 [WI (p. 396)]	Colonial America	
HIST 3312 [WI (p. 396)]	A Nation Divided, 1812-1865	
HIST 3315 [WI (p. 396)]	America in the Gilded Age, 1865-1918	
HIST 3335 [WI (p. 396)]	History of Mexico	
HIST 4301 [WI (p. 396)]	United States and the World	
HIST 4305 [WI (p. 396)]	Ideas in Action: American Social Thought from the Progressive Era to the Present	
HIST 4311 [WI (p. 396)]	Research in American Political History	
HIST 4331 [WI (p. 396)]	World Since 1919	
Advanced HIST		6
Foreign Language 1411, 1412, 2311, 2312		14
Total Hours		**77**

Secondary Education Certification - History

READ 3351 [WI (p. 396)]	Content Area Literacy	3
HIST 2301	History of Texas	3
EDUC 3321 [WI (p. 396)]	Foundations of Teaching: Middle and Secondary Classrooms	3
EDUC 4331	Instructional Strategies for Middle and Secondary Classrooms	3
EDSP 4361	Teaching Strategies for Adolescent Students with Learning Disabilities	3
EDUC 4335	Issues of Professionalism	3
EDUC 4690	Clinical Teaching	6
Advanced HIST		12
Select one of the following:		3
GEOG 1303	World Regional Geography	
GEOG 1320	Introduction to Human Geography	
GEOG 2301	The Geography of Texas	
GEOG 3312 [WI (p. 396)]	Economic Geography	
Select one of the following:		3
ANTH 2351	Cultural Anthropology	

ECON 1301	Introduction To Economics	
ECON 2301	Principles of Macroeconomics	
PHIL 1301	Introduction to Philosophy	
PHIL 2303	Introduction to Logic	
PHIL 3301	Ethics in the Professions	
PHIL 4385	Philosophy Seminar	
RELI 1301	Survey of the Old Testament	
RELI 1302	Survey of the New Testament	
RELI 3304	World Religions: Theory, Origins, & Practices	
SOCI 1301	Introductory Sociology	
Select one of the following:		3
PSYC 2308	Child Psychology	
PSYC 3303	Educational Psychology	
CHFS 3300	Child Development: Theory, Research, and Practice	
Total Hours		**45**

Secondary Education Certification - Social Studies

Advanced Hours from ECON, GEOG, HIST, POLS		6
HIST 2301	History of Texas	3
GEOG 1303	World Regional Geography	3
ECON 2301	Principles of Macroeconomics	3
ECON 2302	Principles of Microeconomics	3
EDUC 3321 [WI (p. 396)]	Foundations of Teaching: Middle and Secondary Classrooms	3
EDUC 4331	Instructional Strategies for Middle and Secondary Classrooms	3
EDSP 4361	Teaching Strategies for Adolescent Students with Learning Disabilities	3
EDUC 4335	Issues of Professionalism	3
EDUC 4690	Clinical Teaching	6
READ 3351 [WI (p. 396)]	Content Area Literacy	3
Select one of the following:		3
GEOG 1320	Introduction to Human Geography	
GEOG 2301	The Geography of Texas	
GEOG 3312 [WI (p. 396)]	Economic Geography	
Select one of the following:		3
PSYC 2308	Child Psychology	
PSYC 3303	Educational Psychology	
CHFS 3300	Child Development: Theory, Research, and Practice	
Total Hours		**45**

Without Teacher Certification

Advanced HIST		15
Select one of the following:		3
GEOG 1303	World Regional Geography	
GEOG 1320	Introduction to Human Geography	
GEOG 1451	Pre-GIS: GPS, VGI and Cartography	
GEOG 2301	The Geography of Texas	
GEOG 3312 [WI (p. 396)]	Economic Geography	
HIST 2301	History of Texas	
Select one of the following:		3
ANTH 2351	Cultural Anthropology	
ECON 2301	Principles of Macroeconomics	
ECON 1301	Introduction To Economics	
PHIL 1301	Introduction to Philosophy	
PHIL 2303	Introduction to Logic	
PHIL 3301	Ethics in the Professions	
PHIL 4385	Philosophy Seminar	
RELI 1301	Survey of the Old Testament	
RELI 1302	Survey of the New Testament	
RELI 3304	World Religions: Theory, Origins, & Practices	
SOCI 1301	Introductory Sociology	
Electives (18 Hours Advanced)		22
Total Hours		**43**

Minor in History

HIST 1301	United States History I	3
HIST 1302	United States History II	3

HIST 3340	Historical Methods	3
One of the following:		3
HIST 2321	World Civilizations I	
HIST 2322	World Civilizations II	
Upper Level History Electives		6
Total Hours		**18**

Certificate in United States History for Secondary Educators

HIST 1301	United States History I	3
HIST 1302	United States History II	3
Select 3 of the following courses (9 hours total)		9
HIST 3310 [WI (p. 396)]	Colonial America	
HIST 3311	Creating a Nation	
HIST 3312 [WI (p. 396)]	A Nation Divided, 1812-1865	
HIST 3315 [WI (p. 396)]	America in the Gilded Age, 1865-1918	
HIST 3317	U.S. Military History	
HIST 3319	History of American Ranching and Agriculture	
HIST 3323	Women in United States History	
HIST 3324	Making Modern America, 1919-Present	
HIST 3340	Historical Methods	
HIST 4301 [WI (p. 396)]	United States and the World	
HIST 4303	History of the American Borderlands	
HIST 4305 [WI (p. 396)]	Ideas in Action: American Social Thought from the Progressive Era to the Present	
HIST 4311 [WI (p. 396)]	Research in American Political History	
HIST 4313	A People's History of the United States	
HIST 4314	History of the American West	
HIST 4315	Slavery in the Americas	
HIST 4343	Contemporary History of the United States	
HIST 4350	Special Topics in History [1]	
HIST 4390 [WI (p. 396)]	History Capstone [2]	
Total Hours		**15**

Certificate in World History for Secondary Educators

HIST 2321	World Civilizations I	3
HIST 2322	World Civilizations II	3
Select 2 of the following courses (6 hours total)		6
HIST 3302	The Ancient World	
HIST 3303	Europe in the Middle Ages	
HIST 3325	The Rise of Early-Modern Europe, 1453-1789	
HIST 3332	Latin America After Independence	
HIST 3335 [WI (p. 396)]	History of Mexico	
HIST 3337	History of Modern Africa	
HIST 4300	World War II and the Holocaust	
HIST 4324	National Histories	
HIST 4327	History of the British Empire	
HIST 4330	History of Modern Europe, 1789-Present	
HIST 4331 [WI (p. 396)]	World Since 1919	
HIST 4332	Decolonization, Development, and the Cold War	
HIST 4350	Special Topics in History [1]	
HIST 4390 [WI (p. 396)]	History Capstone [2]	
Total Hours		**12**

Geography and GIS

The Bachelor of Science Degree in Geography and GIS provides students with the opportunity to acquire the knowledge and develop technical skills that are needed in every sector of the economy, from agricultural production, to natural resource management, to oil exploration, to facility management, to manufacturing, to urban planning, to retail location, to gathering census data, to space exploration. The department also offers a Bachelor of Applied Arts and Sciences in GIS, which caters to the needs of nontraditional students with existing military, technical or vocational credits in some aspects of GIS. The BAAS in GIS is offered only online and on the Fort Worth campus. Students who major in this discipline will learn how to use computers, with the aid of powerful and very sophisticated software and other related tools to gather, store, analyze and display spatial/geographic/locational data. Graduates in this field will be able to work across a variety of disciplines. This programs places a lot of emphasis on hands-on and students will learn from a variety of exceptional faculty.

Bachelor of Science Degree in Geography and Geographic Information Systems Program Requirements

General Education Requirements (p. 396)		42
ENGL 1301 [shared] [WI (p. 396)]	Composition I	
ENGL 1302 [shared] [WI (p. 396)]	Composition II	
GEOG 1303 [shared]	World Regional Geography	
MATH 1314 [shared]	College Algebra	

GEOG 1320	Introduction to Human Geography	3
GEOG 1451 [shared]	Pre-GIS: GPS, VGI and Cartography	
Select one:		
GEOL 1308 [shared]	Natural Disasters	
GEOG 1301 [shared]	Planet Earth	
GEOG 2451	Introduction to Geographic Information Systems	4
GEOG 3312 [WI (p. 396)]	Economic Geography	3
GEOG 3450	Intermediate Geographic Information Systems	4
SOCI 3330	Social Science Statistics	3
GEOG 3352	Introduction to Crime Mapping	3
BCIS 3334	Programming for Business I	3
GEOG 4450	Advanced Geographic Information Systems	4
GEOG 4451	Applied Remote Sensing	4
ENGL 3309 [WI (p. 396)]	Professional Writing	3
Choose 18 hours from the following		18
BCIS 3315	Web Development	
BCIS 3344	Programming for Business II	
BCIS 4301	Database Theory and Practice	
BCIS 4352	Structured Query Language	
BCIS 4379	The Technology of E-Business	
BUSI 4344	Introduction to International Business	
COSC 3360	Python Programming for Data Science	
CVEN 2200	Surveying	
CVEN 2235	Civil Engineering Graphics	
EASC 3330	Meteorology	
EASC 3340	Oceanography	
EASC 3360	Remote Sensing	
EASC 3370	Biogeography	
ENGR 2251	Fundamentals of GIS for Engineers	
ENVS 1302	Science, Technology, and the Environment	
ENVS 1308	Environmental Science II	
ENVS 3305	GIS for Natural Resource Scientists	
ENVS 3310	Environmental Policy	
ENVS 3315	Sustainability	
ENVS 4302	Land Use in the American West	
ENVS 4312	International Environmental Issues	
GEOG 2301	The Geography of Texas	
GEOL 1302	Geology of National Parks	
GEOL 1307	Introduction to Environmental Science	
GEOL 3310	Geomorphology	
SOCI 1301	Introductory Sociology	
SOCI 3306	Urban Sociology	
SOCI 3307	Rural Sociology	
SOCI 3312	Environmental Sociology	
SOCI 4313	Globalization	
WSES 1301	Society, Natural Resources, and the Environment	
WSES 2405	Ecology for Natural Resource Managers	
Electives (12 hours must be advanced)		26
Total Hours		**120**

Bachelor of Applied Arts and Science Degree in Geographic Information Systems

General Education Requirements (p. 396)		42
ENGL 1301 [shared] [WI (p. 396)]	Composition I	
ENGL 1302 [shared] [WI (p. 396)]	Composition II	
GEOG 3312 [WI (p. 396)]	Economic Geography	3
ENGL 3309 [WI (p. 396)]	Professional Writing	3
BCIS 3334	Programming for Business I	3
GEOG 3352	Introduction to Crime Mapping	3
GEOG 3450	Intermediate Geographic Information Systems (must be taken before or concurrently with GEOG 4450)	4
GEOG 4450	Advanced Geographic Information Systems	4
GEOG 4451	Applied Remote Sensing	4
BCIS 4301	Database Theory and Practice	3
BCIS 3344	Programming for Business II	3
BCIS 4352	Structured Query Language	3
Credit for Prior Learning Component (Must Total 45 Hours):		
Credit for Prior Learning		12-42

Electives		3-33
Total Hours		**120**

Certificate in Geographic Information Systems

GEOG 2451	Introduction to Geographic Information Systems	4
GEOG 3450	Intermediate Geographic Information Systems	4
GEOG 4450	Advanced Geographic Information Systems	4
Choose 6 hours from the following		6
BCIS 3334	Programming for Business I	
BCIS 3344	Programming for Business II	
COSC 3360	Python Programming for Data Science	
CVEN 2200	Surveying	
CVEN 2235	Civil Engineering Graphics	
EASC 3360	Remote Sensing	
GEOG 1451	Pre-GIS: GPS, VGI and Cartography	
ENVS 1302	Science, Technology, and the Environment	
ENVS 1308	Environmental Science II	
ENVS 3305	GIS for Natural Resource Scientists	
GEOG 3352	Introduction to Crime Mapping	
GEOG 4451	Applied Remote Sensing	
Total Hours		**18**

Endowed Chair

- Dr. Deborah Liles

Associate professors

- Dr. Paul Banda
- Dr. Jensen Branscombe
- Dr. Aaron George
- Dr. Christopher Hickman
- Dr. Steven Peach

Assistant professor

- Dr. Yuen Yolanda Tsang

Instructor

- Dr. John Harris
- Dr. Franziska Yost

Professional Assistant Professor - Tarleton Today

- Dr. Jahue Anderson

Geography Courses

GEOG 1301. Planet Earth. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course introduces students to the processes that drive Earth's physical systems. Students will explore the relationships among these physical systems, with emphasis on weather and climate, water, ecosystems, geologic processes and landform development, and human interactions with the physical environment.

GEOG 1303. World Regional Geography. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduction to the basic concepts of geography through a study of the major regions of the world. This course enhances the understanding of world events, lifestyles, environments, cultures, and conflicts and emphasizes thinking spatially to study human-land relationships.

GEOG 1320. Introduction to Human Geography. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is an introduction to geography as a social science, emphasizing the relevance of geographic concepts to human problems.

GEOG 1451. Pre-GIS: GPS, VGI and Cartography. 4 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
This is an introductory course to GIS. Pre-GIS focuses on the knowledge, instruments, and data necessary for GIS. Pre-GIS is a student-centered, hands-on course that will introduce students to the GIS concepts that are intrinsic in introductory and advanced GIS courses. Students will create virtual maps by gathering data points using GPS instruments. Students will then use GIS to create detailed information relating to their map and data points to answer questions posed in the course. Lab fee: $2.

GEOG 2301. The Geography of Texas. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course uses the key concepts of regional geography to study the evolving character and nature of the different areas of Texas. The interaction of people and environment is used to study the economic development, social and political issues, urbanization, and other changes in Texas in the past and present.

GEOG 2451. Introduction to Geographic Information Systems. 4 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
GIS is a computer-based information system used in managing and analyzing spatial data. This course introduces students to the science, theory and techniques of GIS including basic geodesy, spatial data capture, management and analysis, and cartographic output. Emphasis is placed on the use of technical analysis and software in order to provide students with skills and a conceptual base on which they can build further expertise in GIS. After completing this course, students will master basic concepts of GIS and hands-on skills with ArcGIS, a widely-used GIS package. Students will learn how to create, manipulate, project, and interpret geographically-referenced data. Students are strongly encouraged to take GEOG 1451: Pre-GIS. Students can only receive credit for either WSES 2451, GEOG 2451, EASC 2451 or ENVS 2451. Lab fee: $2.

GEOG 3312. Economic Geography. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This course examines economic activity and production as a function of geographic location. It introduces the basic concepts related to the advance, spread, and distribution of economic activity around the planet and considers the forces that are reshaping the global economy, the fundamentals of spatial economics, and classical location theories.

GEOG 3352. Introduction to Crime Mapping. 3 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
The course provides conceptual knowledge and practical skills to design and implement a GIS-based analysis of community crime problems. This course constitutes an introduction to the scope and methods of crime mapping and analysis. The theory, logic, and practical applications of mapping and analysis are examined with a focus on developing a knowledge base, skills, and integration of mapping and analysis concepts that are applicable to crime detection and prevention. No prerequisites. Lab fee: $2.

GEOG 3450. Intermediate Geographic Information Systems. 4 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
This course covers intermediate topics in geographic information systems (GIS) that will allow students to succeed in the advanced GIS class Prerequisite: GEOG 2451 for GIS-BS students only Lab fee: $2.

GEOG 4084. Internship. 1-4 Credit Hours (Lecture: 0 Hours, Lab: 1-4 Hours).
Directed real-world learning experience under the supervision of a practicing GIS professional. The internship assignment must be approved by an academic advisor in the Geography and GIS program prior to enrollment. The internship must be related to the student's field of study and requires at least 240 hours of supervised work during the semester term. Student maintains a weekly log of work experience gained and, at semester-end, prepares a written report reflecting on the work experience. Student also provides to the academic advisor the employer's evaluation of performance and maintains records of all the listed documentation. No credit will be given for previous experience or activities. Prerequisites: Junior or Senior classification and approval of department head.

GEOG 4086. Geography Problems. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 0 Hours).
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GEOG 4385. Geography Seminar. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will consider major issues in modern geography. May be repeated for credit when topics vary. Prerequisites: GEOG 1303, junior classification or permission of instructor.

GEOG 4450. Advanced Geographic Information Systems. 4 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
This course focuses on advanced topics in geographic information systems (GIS), manipulation of raster data; advanced spatial analysis; advanced geoprocessing, and spatial modeling. Prerequisites: GEOG 3450 and for GGIS majors only: GEOG 2451 Lab fee: $2.

GEOG 4451. Applied Remote Sensing. 4 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
This course focuses on advanced topics in satellite remote sensing and digital image processing. Students will learn how to processes, interpret, classify and analyze satellite data for different applications. Lab fee: $2.

History Courses

HIST 1301. United States History I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is a survey of United States history from the first European contacts through the end of the Reconstruction Period. It is designed to cover the broad sweep of United States political, cultural, social, and economic history with emphasis on those periods that have helped to shape a distinctive American character. This course with HIST 1302 will fulfill the legislative requirement of two semesters of United States history.

HIST 1302. United States History II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course continues the survey of United States history to present times. The emphasis is on the developments that contributed to the growth of modern America. This course with HIST 1301 will fulfill the legislative requirement of two semesters of United States history.

HIST 2301. History of Texas. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This survey course of Texas history addresses social, political, and economic developments from the Spanish colonial period to the present, with special attention to the Spanish and Mexican periods, causes and effects of the Revolutionary and Republic periods, the state's role in the Civil War, effects of Reconstruction, challenges of the Progressive, World Wars, and Civil Rights movements Prerequisite: HIST 1301 and 1302.

HIST 2321. World Civilizations I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A survey of world history from prehistoric times to the beginning of the 18th century. Special attention will be given to the origins of civilization in Africa, Asia, and the Middle East and its development through the ancient, medieval, and early modern eras.

HIST 2322. World Civilizations II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A survey of world history from the beginning of the 18th century to the present. Special emphasis will be placed on the rise and fall of Western global influence between the 18th and 20th centuries, and the numerous repercussions of this development.

HIST 3302. The Ancient World. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course offers a survey of the ancient Near East, Greece, the Hellenistic period, and the Roman Republic and Empire. Prerequisites: HIST 1301 and 1302; for History majors only, HIST 3340, which can be taken concurrently.

HIST 3303. Europe in the Middle Ages. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course offers a survey of Medieval Europe from the decline of the ancient world to the eve of the Renaissance. Special attention will be given to the examination of economic and social changes underlying the formation and development of medieval civilization. Prerequisites: HIST 1301 and 1302; for History majors only, HIST 3340, which can be taken concurrently.

HIST 3309. History of Christianity and Christian Thought to the Reformation. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
An overview of the history of Christianity and Christian thought from founding to the beginnings of the Reformation with particular attention to major themes, movements, events, leaders, and developments within their social, cultural and political contexts. The course also offers an introduction to the central ideas and debates that have shaped the historical development of Christian theologies, practices, and institutions. Credit will not be awarded for more than one of the following courses: PHIL 3309, HIST 3309, and RELI 3309. Prerequisites: HIST 1301 and 1302; for History majors only, HIST 3340, which can be taken concurrently.

HIST 3310. Colonial America. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This writing intensive course tracks the history of North America from first contact between American Indians, Europeans, and Africans to 1800. The course emphasizes research into the primary and secondary sources relevant to European-Indian relations; imperial and intertribal rivalries; the emergence of slavery and plantation societies; and the development of the Spanish, English, Dutch, and French mainland colonies. Each student will complete a rigorous original research project that examines this history. Prerequisites: HIST 1301 and 1302; for History majors only, HIST 3340, which can be taken concurrently.

HIST 3311. Creating a Nation. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides a study of United States history from 1763 to 1815. The course concentrates on the causes and consequences of the American Revolution, the creation of the Constitution, the role of slavery, and the tumultuous political and social events of the young republic. Prerequisites: HIST 1301 and 1302; for History majors only, HIST 3340, which can be taken concurrently.

HIST 3312. A Nation Divided, 1812-1865. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This Writing Intensive (WI) course surveys 1812 to 1865 in the United States. Class content will focus on social, cultural, political, technological, and economic changes and developments up to the election of 1860, and their effects on the American Civil War. Prerequisites: HIST 1301 and 1302; for History majors only, HIST 3340, which can be taken concurrently.

HIST 3315. America in the Gilded Age, 1865-1918. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
In the years following the Civil War, the United States faced dramatic political and economic challenges. As the country grappled with the need to protect the rights of newly-freed African Americans, it also had to confront violent social convulsions as robber barons and workers' unions tried to assert their place in the newly industrialized country. In addition to examining the clashes between freedmen and southerners, workers and bosses, and immigrants and nativists, this course will also examine reform movements such as Greenbackers, Edward Bellamy, Henry George, the Populists, and the Progressives. Prerequisites: HIST 1301 and 1302; for History majors only, HIST 3340, which can be taken concurrently.

HIST 3317. U.S. Military History. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines the evolution of American warfighting philosophy from the colonial period to the twenty-first century. Students will explore key historical conflicts and trace the operational and technological advances that have shaped U.S. military actions of the past. This course will also highlight the evolution of doctrinal thought, specifically the rise of maneuver warfare theory and understanding the framework of decision-making and adaptability in modern warfare. This course is compliant with U.S. Army TRADOC Regulation 350-13. Credit will not be awarded for both HIST 3317 and STRG 3317. Prerequisites: HIST 1301 and 1302; for History majors only, HIST 3340, which can be taken concurrently.

HIST 3319. History of American Ranching and Agriculture. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course explores the history of ranching and agriculture in the United States from pre-colonial times to the present. Students will examine the evolution of agricultural practices and ranching culture, and their social, economic, environmental, and political impacts. The course will focus on how these industries shaped the development of the nation, the people involved, and their contributions to the United States. Prerequisite: HIST 1301 and 1302; for History majors only, HIST 3340, which can be taken concurrently.

HIST 3323. Women in United States History. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines changing experiences of women in the United States from the colonial period through the present. Commonly explored topics and themes include but are not limited to: political power and equal rights, economics and labor, citizenship, family patterns, media and popular culture, and intersectionality. Prerequisites: HIST 1301 and 1302; for History majors only, HIST 3340, which can be taken concurrently.

HIST 3324. Making Modern America, 1919-Present. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This course covers the important social, political, and cultural changes which affected the United States in the twentieth and twenty-first centuries, beginning at the end of World War I. In particular, this course will examine how the United States developed from a parochial, rural society into a modern, centralized state; how the United States became a global superpower; and the disintegration of the American political order in the twenty-first century. Prerequisite: HIST 1301 and 1302; for History majors only, HIST 3340, which can be taken concurrently.

HIST 3325. The Rise of Early-Modern Europe, 1453-1789. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course covers European history from the end of the Byzantine empire in 1453 to the French Revolution in 1789. This course will explain the social, economic, and political processes beginning from the mid-fifteenth century to the late eighteenth century that took Europe from the periphery of Eurasia to the center of the international order. Students will learn the major historical events and processes that contributed to the rise and expansion of early modern Europe such as the Renaissance, the Reformation, the Age of Exploration, the Rise of Absolutism, the Scientific Revolution, the Age of Enlightenment, and the Industrial/Industrious Revolution. All of these factors and more contributed to Europe taking a place of global hegemony that it maintained going into the nineteenth century. Prerequisite: HIST 1301 and 1302; for History majors only, HIST 3340, which can be taken concurrently.

HIST 3332. Latin America After Independence. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course on the history of Modern Latin America discusses the American global hegemony, conflicts among civilizations, North and South separation, and Latin American influence in the Hispanic world. Prerequisites: HIST 1301 and 1302; for History majors only, HIST 3340, which can be taken concurrently.

HIST 3335. History of Mexico. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This course offers a survey of the political, economic, social, and cultural history of Mexico that includes pre-Columbian civilizations, especially the Maya and Aztec, the Spanish colonial era, and the national period. Prerequisites: HIST 1301 and 1302; for History majors only, HIST 3340, which can be taken concurrently.

HIST 3337. History of Modern Africa. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course surveys significant developments in modern African history. It covers the period from 1884, when European powers colonized the African continent, up to the end of the twentieth century. Course topics and themes include Africa on the eve of European colonization, the scramble and partition of Africa, African reactions to European colonization, systems of colonial governance, Africa and the two World Wars, decolonization in Africa, the history of development in Africa, and Africa and the Cold War. Prerequisite: HIST 1301 and 1302; for History majors only, HIST 3340, which can be taken concurrently.

HIST 3340. Historical Methods. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course explores why we study history and examines the nature of the discipline and the concepts basic to all historical thinking, including causation, periodization, change and continuity, the roles of social forces and individuals, and problems of interpretation, accuracy, and truth. As a part of this examination, the course will introduce students to historiography and expose students to major developments and turning points in the discipline, especially since the nineteenth century. The course will also cover the process of historical research and writing and will introduce students to career options. Prerequisite: 9 hours of HIST.

HIST 4085. History Seminar. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 0 Hours).
Individual instruction in selected fields of history. The course will stress reports and wide readings in the field selected. Prerequisites: Senior classification and HIST 3340, or approval of department head. May be taken more than once for credit.

HIST 4086. History Problems. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 1-6 Hours).
Independent reading, research and discussion. Entry into this course will be arranged with a history faculty advisor. Prerequisite: HIST 3340 or permission of department head.

HIST 4300. World War II and the Holocaust. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course offers an examination of European history between the end of the First World War to the aftermath of World War II. Special attention will be devoted to the rise of Hitler in the early 1930s and the origins, process, and consequences of the Holocaust. Prerequisites: HIST 1301 and 1302; for History majors only, HIST 3340, which can be taken concurrently.

HIST 4301. United States and the World. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This course offers a history of how world events influenced American history from 1789 to the present. The course will discuss American diplomatic and social reactions to major world occurrences. Emphasis will be on the twentieth century, particularly on the two world wars and the Cold War era. Prerequisites: HIST 1301 and 1302; for History majors only, HIST 3340, which can be taken concurrently.

HIST 4303. History of the American Borderlands. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines the history of the North American borderlands from the sixteenth century to the present. It takes a comparative approach, examining the history of the US-Mexico and US-Canada borderlands in relation to one another. It addresses several key themes, including the establishment of formal legal regimes in the borderlands; changing notions of citizenship; immigration policies and experiences; community tensions; the rise of border cities as sites of tourism and vice; Texas as a border state; crime and smuggling along the borderline; representations of the border in media and popular culture; and the political and economic relationships between the United States, Mexico, and Canada. Prerequisites: HIST 1301 and 1302; for History majors only, HIST 3340, which can be taken concurrently.

HIST 4305. Ideas in Action: American Social Thought from the Progressive Era to the Present. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This reading and writing intensive seminar offers students the opportunity to encounter the ideas that have been cornerstones of intellectual debate in the United States since the late nineteenth century. From the Pragmatists (and the progressive era) to the neoconservatives of the more recent past, ideas have been embedded within the more available world of policy, politics and major historical developments. Participants in this course will survey a wide array of intellectual debates that have been essential components of American history. Prerequisites: HIST 1301 and 1302; for History majors only, HIST 3340, which can be taken concurrently.

HIST 4307. History Careers Outside the Classroom. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course offers an introduction to and examination of the choices available for historians who seek careers outside of classroom teaching, including but not limited to the exploration of career paths available in public history, historic preservation and archives, public service, law, editing and publishing, technology, and business. Class activities and materials will emphasize career and professional development, skills assessment, and preparation for professional settings and graduate school. Prerequisites: HIST 1301 and 1302; for History majors only, HIST 3340, which can be taken concurrently.

HIST 4311. Research in American Political History. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This writing intensive seminar offers students the opportunity to encounter vital American political history developments since the founding of the United States. All students will carry out extensive reading and research in primary and secondary resources. Those sources will have direct relevance to the research project the student pursues. Topics for the semester's research will vary based upon instructor prerogatives. Prerequisites: HIST 1301 and 1302; for History majors only, HIST 3340, which can be taken concurrently.

HIST 4313. A People's History of the United States. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This course addresses the larger social, political, and economic forces that challenged everyday Americans and explores the many and varied forms of agency they employed to confront those forces. The focus of this course will vary each semester to emphasize different topics and time periods. Prerequisites: HIST 1301 and 1302; for History majors only, HIST 3340, which can be taken concurrently.

HIST 4314. History of the American West. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course explores the history of the American West. It examines political, social, cultural, and environmental issues in the American West, with an emphasis on how the region was shaped by Indigenous American societies, European exploration and colonization, the expansion of the United States, and the development of the modern West. The course will also address key themes such as settler colonialism, demographics, labor, environmental change, and the myths and realities of the West. Prerequisites: HIST 1301 and 1302; for History majors only, HIST 3340, which can be taken concurrently.

HIST 4315. Slavery in the Americas. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course traces enslavement and emancipation in the Americas from the 1500s through the 1800s. It covers a wide range of themes, places, and eras, such as various forms of Black and Indigenous captivity; the trans-Atlantic, intra-American, and Indigenous slave trades; the centrality of enslavement to colonial empires and nation-states; social, cultural, and religious life in enslaved communities; and post-emancipation society. To bring this complex history to life, students will engage with a variety of materials. Prerequisites: HIST 1301 and 1302; for History majors only, HIST 3340, which can be taken concurrently.

HIST 4324. National Histories. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Each time this course is offered, it will examine the history of a particular state. May be repeated for credit when topics vary. Prerequisites: HIST 1301 and 1302; for History majors only, HIST 3340, which can be taken concurrently.

HIST 4327. History of the British Empire. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to familiarize students with some of the major themes surrounding the rise, global growth, and fall of the British Empire. Through this course, students will develop a broader and deeper understanding of the following issues: factors for the rise of the empire; its global spread; the economics of empire; the administrative systems used in the empire; the experiences of the colonized peoples; and its eventual downfall in the twentieth century. In the end, students will also be introduced to the lingering legacies of the British empire across the world. Students will be expected to develop advanced reading and analytical skills as well as a better understanding of parts of the world that were once under imperial rule. Prerequisites: HIST 1301 and 1302; for History majors only, HIST 3340, which can be taken concurrently.

HIST 4330. History of Modern Europe, 1789-Present. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This course covers European history from the French Revolution in 1789 to the present.# This course will explain the social, economic, and political processes beginning in the late eighteenth century that transformed Europe and brought it to its height of imperial power before rapidly losing these empires in the second half of the twentieth century. Students will learn the major historical events and processes that contributed to the rise and expansion of modern Europe such as capitalism, revolution, conservatism, nationalism, fascism, communism, imperialism, decolonization, and internationalism. Prerequisite: HIST 1301 and 1302; for History majors only, HIST 3340, which can be taken concurrently.

HIST 4331. World Since 1919. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This writing intensive course explores major trends in world history following World War I, including the impact of the Great Depression, the rise of fascism, World War II and its impact, the Cold War, decolonization, and the rise and fall of the Soviet Union. Events of the latter twentieth century receive special emphasis. Prerequisites: HIST 1301 and 1302; for History majors only, HIST 3340, which can be taken concurrently.

HIST 4332. Decolonization, Development, and the Cold War. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course introduces students to the history of global north-south relations since 1945 through an exploration of three inter-related themes, namely: Decolonization; Development; and the Cold War. The focus is on the decolonization of European empires in Asia and Africa; the origins, major developments, and failure of the development agenda, both colonial and post-colonial; and the globalization of the Cold War rivalry (between the USA and the USSR) to the so-called Third World (Africa, Asia, and Latin America). By focusing on these three inter-related themes, the aim is to help students understand historical developments from a global perspective, and that the world is more inter-connected than they previously thought or viewed it. Prerequisites: HIST 1301 and 1302; for History majors only, HIST 3340, which can be taken concurrently.

HIST 4343. Contemporary History of the United States. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This course will cover the last fifty years of American history, with an eye on explaining how historical developments have led to current debates and controversies. A close eye will be paid to the ways in which politics has changed in the last fifty years, how the treatment of minority groups has changed in the last fifty years, and on the origins of contemporary issues currently being discussed in American politics and culture. The class will also discuss the difficulties which are inherent in doing history so near the present and teach students how to historicize current events.

HIST 4350. Special Topics in History. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course offers a study of important periods, regions, and themes in history. May be repeated when the topic varies. Prerequisites: HIST 1301 and 1302; for History majors only, HIST 3340, which can be taken concurrently.

HIST 4384. Practicum, Field Problem or Internship. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Supervised professional activities in workplaces where historians find professional careers including museums, historic preservation, cultural resource management, archival administration, teaching, parks, oral history, corporate history, and editing and publishing. Will count as an elective but not for teacher certification or completion of the history major. Prerequisites: 6 hours of HIST, HIST 3340, and HIST 4307. May be repeated once for credit.

HIST 4390. History Capstone. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This course requires students to synthesize knowledge and apply concepts and skills acquired in previous history courses. Students will identify a research question, consult relevant primary and secondary sources, analyze those sources, formulate an interpretation, and write a paper to communicate their conclusions. The topic of the Capstone will change every semester and will be determined by the instructor. Preferably, students will take this course in the last spring semester in which they are completing coursework. Prerequisites: 6 hours of advanced History including HIST 3340; for Secondary Education majors only, 12 hours of HIST and HIST 3340.

Department of Performing Arts

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The Department of Performing Arts offers programs in Music and Theatre, including a Bachelor of Arts in Music (with a general emphasis or an emphasis in Music Business), a Bachelor of Music degree (with concentrations in Music Education, Instrumental Performance, Vocal Performance, Jazz Studies, or Musical Theatre), and a Bachelor of Fine Arts degree in Theatre (with concentrations in Theatre Education, Acting/Directing, Design and Technology, or Musical Theatre). The department also offers a graduate degree, the Master of Music in Music Education, and there is an option for the Accelerated BM to MM in 5 Years degree (combines the Bachelor of Music with the Master of Music in which both degrees can be completed within 5 years).

The department also offers minors in the following areas: Jazz Studies, Music, Music Business, Musical Theatre, and Theatre, and certificates in Music Business and Jazz Studies.

The Bachelor of Fine Arts Degree in Theatre

General Education Requirements (p. 396)		42
ENGL 1301 [shared] [WI (p. 396)]	Composition I	
ENGL 1302 [shared] [WI (p. 396)]	Composition II	
Sophomore Literature [shared]		
DRAM 1351	Acting I	3
DRAM 1341	Makeup	3
DRAM 1230	Stagecraft I	2
DRAM 2231	Stagecraft II	2
DRAM 2255	Script Analysis	2
DRAM 2361 [shared]	History of the Theatre I	
DRAM 2362	History of the Theatre II	3
DRAM 3302	Directing	3
DRAM 4304 [WI (p. 396)]	Dramatic Theory & Criticism	3
DRAM 4307	Theatre Management	3
Total Hours		**66**

Acting and Directing

DRAM 1112	Theatre Movement/Dance I	1
DRAM 1113	Theatre Voice, Diction and Dialect I	1
DRAM 1120	Theatre Practicum I	1
DRAM 1121	Theatre Practicum II	1
DRAM 1352	Acting II	3
DRAM 2112	Theatre Movement/Dance II	1
DRAM 2113	Theatre Voice, Diction and Dialect II	1
DRAM 2120	Theatre Practicum III	1
DRAM 2121	Theatre Practicum IV	1
DRAM 3112	Theatre Movement/Dance III	1
DRAM 3113	Theatre Voice, Diction and Dialect III	1
DRAM 3351	Acting III	3
DRAM 3363	History of Musical Theatre	3
DRAM 3374	Writing for the Stage and Screen	3
DRAM 4300	Shakespeare	3
DRAM 4302	Directing II	3
DRAM 4352	Acting IV	3
FINA 3301 [WI (p. 396)]	The Arts in Contemporary Society	3
DRAM 4384	Internship	3
Select one from the following:		3
DRAM 3300	Scene Design and Construction	
DRAM 3301	Costume Design and Construction	
DRAM 3303	Lighting for the Theatre	
DRAM 3304	Sound for the Theatre	
Advanced DRAM Electives		10
DANC Electives		4
Total Hours		**54**

Design and Theatre Technology

DRAM 1112	Theatre Movement/Dance I	1
DRAM 1113	Theatre Voice, Diction and Dialect I	1
DRAM 1120	Theatre Practicum I	1
DRAM 1121	Theatre Practicum II	1
DRAM 2120	Theatre Practicum III	1
DRAM 2121	Theatre Practicum IV	1
DRAM 2232	Stagecraft III	2
DRAM 2333	Theatrical Drawing and Drafting	3
DRAM 3209	Portfolio Development and Career Management	2
DRAM 3300	Scene Design and Construction	3

DRAM 3301	Costume Design and Construction	3
DRAM 3303	Lighting for the Theatre	3
DRAM 3304	Sound for the Theatre	3
DRAM 3306	Scenic painting	3
DRAM 3307	Vectorworks; Computer Aided Drafting	3
DRAM 3308	Advanced Stagecraft	3
DRAM 4384	Internship	3
FINA 3301 [WI (p. 396)]	The Arts in Contemporary Society	3
ARTS 1316	Drawing I	3
ARTS 2313	Graphic Design Fundamentals	3
Advance DRAM Electives		8
Total Hours		**54**

Musical Theatre

DRAM 1120	Theatre Practicum I	1
DRAM 1121	Theatre Practicum II	1
DRAM 1113	Theatre Voice, Diction and Dialect I	1
DRAM 1112	Theatre Movement/Dance I	1
DRAM 1352	Acting II	3
DRAM 3363	History of Musical Theatre	3
DRAM 3300	Scene Design and Construction	3
DRAM 3301	Costume Design and Construction	3
DRAM 3271	Musical Theatre Dance I	2
DRAM 3272	Musical Theatre Dance II	2
DRAM 4300	Shakespeare	3
DRAM 4302	Directing II	3
DRAM 4384	Internship	3
FINA 3301 [WI (p. 396)]	The Arts in Contemporary Society	3
MUAP 1231	Applied Music for Majors	2
MUAP 1232	Applied Music for Majors	2
MUAP 2231	Applied Music for Majors	2
MUAP 2232	Applied Music for Majors	2
MUSI 1116	Aural Skills I	1
MUSI 1311	Music Theory I	3
MUEN 3152	Musical Theatre/Opera Workshop [1]	3
Advanced DRAM electives		3
Advance DANC Electives		4
Total Hours		**54**

Theatre Education

DRAM 1120	Theatre Practicum I	1
DRAM 1121	Theatre Practicum II	1
DRAM 1112	Theatre Movement/Dance I	1
DRAM 1113	Theatre Voice, Diction and Dialect I	1
DRAM 1352	Acting II	3
DRAM 2112	Theatre Movement/Dance II	1
DRAM 2113	Theatre Voice, Diction and Dialect II	1
DRAM 2120	Theatre Practicum III	1
DRAM 2121	Theatre Practicum IV	1
DRAM 3210	Directing Young Actors	2
DRAM 3300	Scene Design and Construction	3
DRAM 3301	Costume Design and Construction	3
DRAM 3303	Lighting for the Theatre	3
DRAM 3304	Sound for the Theatre	3
DRAM 3305	Theatre for Young People	3
DRAM 3373	Theatre for the Classroom	3
DRAM 4302	Directing II	3
EDUC 3321 [WI (p. 396)]	Foundations of Teaching: Middle and Secondary Classrooms	3
EDUC 4331	Instructional Strategies for Middle and Secondary Classrooms	3
EDSP 4361	Teaching Strategies for Adolescent Students with Learning Disabilities	3
EDUC 4335	Issues of Professionalism	3
EDUC 4690	Clinical Teaching	6
READ 3351 [WI (p. 396)]	Content Area Literacy	3
Choose one of the following:		3
CHFS 3300	Child Development: Theory, Research, and Practice	
PSYC 2308	Child Psychology	

PSYC 3303	Educational Psychology	
Total Hours		**58**

Additional Information for All Theatre Majors

All theatre majors must receive an overall grade of C or better in any theatre course that applies to their degree.

In addition, all theatre students should become familiar with the current Theatre Major Handbook (https://www.tarleton.edu/finearts/theatre/theatrehandbook.pdf) and abide by the policies and procedures therein.

The Bachelor of Arts Degree in Music

General Education Requirements (p. 396)		42
Select 4 hours from MUEN 3000 level repeatable ensembles or MUSI 3100		4
MUAP 1220	Applied Lower Level Major Lessons [1]	8
MUSI 1116	Aural Skills I	1
MUSI 1117	Aural Skills II	1
MUSI 1181	Piano Class I [2]	1
MUSI 1182	Piano Class II [2]	1
MUSI 1311 [shared]	Music Theory I	
MUSI 1312	Music Theory II	3
MUSI 2116	Aural Skills III	1
MUSI 2117	Aural Skills IV	1
MUSI 2311	Music Theory III	3
MUSI 2312	Music Theory IV	3
MUSI 3211	Conducting I	2
MUSI 3229	World Music	2
MUSI 3327 [WI (p. 396)]	Music History I	3
MUSI 3328 [WI (p. 396)]	Music History II	3
MUSI 4248	Scoring and Arranging for Ensembles	2
MUSI 4133	Capstone Course in Music	1
Total Hours		**82**

General

FINA 3301 [WI (p. 396)]	The Arts in Contemporary Society	3
MUAP 3220	Applied Upper Level Major Lessons [3]	6
Advanced Electives		15
Electives		6
Choose 4 hours from repeatable MUEN Advanced ensembles		4
Any Foreign Language		4
Total Hours		**38**

Music Business

MUSI 1320	Introduction to Audio Technology	3
MUSI 3305	Digital Music and Beat Production	3
MUSI 1330	Introduction to Music Business	3
MUSI 3320	Music Business II	3
Choose Upper Level Electives as advised from:		12
ARTS 3360	Graphic Design I	
COMM 3310	Communication Law	
COMM 3308	Digital Video Production	
COMM 3321	Advertising	
COMM 4301	Media Management	
MKTG 3312	Marketing	
MGMT 4312	Entrepreneurship	
MUSI 3330	Pro Tools	
Upper Level Electives		14
Total Hours		**38**

The Bachelor of Music Degree

General Education Requirements (p. 396)		42
ENGL 1301 [shared] [WI (p. 396)]	Composition I	
ENGL 1302 [shared] [WI (p. 396)]	Composition II	
Sophomore Literature (Shared)		
Choose 3 hours from MUEN 3000 level repeatable ensembles or MUSI 3100		3
MUAP 1220	Applied Lower Level Major Lessons [2]	8
MUAP 3220	Applied Upper Level Major Lessons [3]	4
MUSI 1116	Aural Skills I	1

MUSI 1117	Aural Skills II	1
MUSI 1181	Piano Class I [1]	1
MUSI 1182	Piano Class II [1]	1
MUSI 1311 [shared]	Music Theory I	
MUSI 1312	Music Theory II	3
MUSI 2116	Aural Skills III	1
MUSI 2117	Aural Skills IV	1
MUSI 2311	Music Theory III	3
MUSI 2312	Music Theory IV	3
MUSI 3211	Conducting I	2
MUSI 3327 [WI (p. 396)]	Music History I	3
MUSI 3328 [WI (p. 396)]	Music History II	3
MUSI 3229	World Music	2
MUSI 4133	Capstone Course in Music	1
Total Hours		**83**

Accelerated BM to MM in 5 Years, Instrumental Concentration

MUSI 1166	Woodwind Class I	1
MUSI 1167	Woodwind Class II	1
MUSI 1178	Brass Class I	1
MUSI 1179	Brass Class II	1
MUSI 1188	Percussion Class I	1
MUSI 1195	Strings Class I	1
MUSI 3116	Interdisciplinary Music Methods	1
MUSI 3212	Conducting II	2
MUSI 3315	Developmental Musical Experiences	3
MUSI 3351	Music Content Area Literacy	3
or READ 3351	Content Area Literacy	
MUSI 4342	Band Techniques	3
MUSI 5330	Analytical Techniques	3
MUSI 5331	Advanced Scoring and Arranging	3
Select from the following:		3
PSYC 2308	Child Psychology	
PSYC 3303	Educational Psychology	
CHFS 3300	Child Development: Theory, Research, and Practice	
EDUC 3321 [WI (p. 396)]	Foundations of Teaching: Middle and Secondary Classrooms	3
EDSP 4361	Teaching Strategies for Adolescent Students with Learning Disabilities	3
EDUC 4331	Instructional Strategies for Middle and Secondary Classrooms	3
EDUC 4335	Issues of Professionalism	3
EDUC 4690	Clinical Teaching	6
Total Hours		**45**

Accelerated BM to MM in 5 Years, Vocal Concentration

MUAP 3150	Piano for Vocal Majors	1
MUAP 4155	Applied Pedagogy	1
MUSI 1262	Diction I	2
MUSI 2262	Diction II	2
MUSI 3116	Interdisciplinary Music Methods	1
MUSI 3212	Conducting II	2
MUSI 3315	Developmental Musical Experiences	3
MUSI 3335	Choral Techniques	3
MUSI 3351	Music Content Area Literacy	3
or READ 3351	Content Area Literacy	
MUSI 5330	Analytical Techniques	3
MUSI 5331	Advanced Scoring and Arranging	3
Select from the following:		3
PSYC 2308	Child Psychology	
PSYC 3303	Educational Psychology	
CHFS 3300	Child Development: Theory, Research, and Practice	
EDUC 3321 [WI (p. 396)]	Foundations of Teaching: Middle and Secondary Classrooms	3
EDSP 4361	Teaching Strategies for Adolescent Students with Learning Disabilities	3
EDUC 4331	Instructional Strategies for Middle and Secondary Classrooms	3
EDUC 4335	Issues of Professionalism	3
EDUC 4690	Clinical Teaching	6
Total Hours		**45**

Instrumental Performance Concentration

MUAP 3320	Applied Performance Level Major Lessons [5]	6
MUAP 4154	Applied Literature	1
MUAP 4155	Applied Pedagogy	1
Select from any MUEN 3000 level repeatable ensemble		8
MUSI 3212	Conducting II	2
MUSI 3249	Form and Analysis	2
MUSI 4248	Scoring and Arranging for Ensembles	2
Advanced Music Electives (MUSI, MUAP, or MUEN)		15
Total Hours		**37**

Jazz Studies Performance Concentration

MUAP 3220	Applied Upper Level Major Lessons [2]	8
MUEN 3134	Jazz Combo [6]	4
MUSI 2360	Jazz Harmony	3
MUSI 3105	Jazz Piano Techniques	1
MUSI 3325	Jazz History	3
MUSI 3360	Jazz Improvisation I	3
MUSI 3361	Jazz Improvisation II	3
MUSI 4245	Jazz Arranging	2
Ensembles selected from the following:		5
MUEN 3132	Jazz Ensemble I	
MUEN 3133	Jazz Ensemble II	
MUEN 3128	Jazz Ensemble III	
Advanced Music Electives (MUEN, MUAP, or MUSI)		5
Total Hours		**37**

Music Education Instrumental Concentration

Select from any MUEN repeatable ensemble [4]		2
MUSI 1166	Woodwind Class I	1
MUSI 1167	Woodwind Class II	1
MUSI 1178	Brass Class I	1
MUSI 1179	Brass Class II	1
MUSI 1188	Percussion Class I	1
MUSI 1195	Strings Class I	1
MUSI 3116	Interdisciplinary Music Methods	1
MUSI 3212	Conducting II	2
MUSI 3249	Form and Analysis	2
MUSI 3315	Developmental Musical Experiences	3
MUSI 3351	Music Content Area Literacy	3
or READ 3351	Content Area Literacy	
MUSI 4248	Scoring and Arranging for Ensembles	2
MUSI 4342	Band Techniques	3
Select from the following:		3
PSYC 2308	Child Psychology	
PSYC 3303	Educational Psychology	
CHFS 3300	Child Development: Theory, Research, and Practice	
EDUC 3321 [WI (p. 396)]	Foundations of Teaching: Middle and Secondary Classrooms	3
EDSP 4361	Teaching Strategies for Adolescent Students with Learning Disabilities	3
EDUC 4331	Instructional Strategies for Middle and Secondary Classrooms	3
EDUC 4335	Issues of Professionalism	3
EDUC 4690	Clinical Teaching	6
Total Hours		**45**

Music Education Vocal Concentration

MUAP 3150	Piano for Vocal Majors	1
MUAP 4155	Applied Pedagogy	1
Select from the following repeatable ensembles: [4]		2
MUEN 3141	University Singers	
MUEN 3151	Chamber Choir	
MUEN 3152	Musical Theatre/Opera Workshop	
MUEN 3153	Texan Harmony	
MUEN 3154	Texan Riders	
MUSI 1262	Diction I	2
MUSI 2262	Diction II	2

MUSI 3116	Interdisciplinary Music Methods	1
MUSI 3212	Conducting II	2
MUSI 3249	Form and Analysis	2
MUSI 3315	Developmental Musical Experiences	3
MUSI 3335	Choral Techniques	3
MUSI 3351	Music Content Area Literacy	3
or READ 3351	Content Area Literacy	
MUSI 4248	Scoring and Arranging for Ensembles	2
Select from the following:		3
PSYC 2308	Child Psychology	
PSYC 3303	Educational Psychology	
CHFS 3300	Child Development: Theory, Research, and Practice	
EDUC 3321 [WI (p. 396)]	Foundations of Teaching: Middle and Secondary Classrooms	3
EDSP 4361	Teaching Strategies for Adolescent Students with Learning Disabilities	3
EDUC 4331	Instructional Strategies for Middle and Secondary Classrooms	3
EDUC 4335	Issues of Professionalism	3
EDUC 4690	Clinical Teaching	6
Total Hours		**45**

Musical Theatre Performance Concentration

MUAP 3220	Applied Upper Level Major Lessons [2]	8
MUEN 3152	Musical Theatre/Opera Workshop [6]	4
Select from any MUEN 3000 level repeatable ensemble		7
DRAM 1351	Acting I	3
DRAM 1120	Theatre Practicum I	1
DRAM 1121	Theatre Practicum II	1
DRAM 3271	Musical Theatre Dance I	2
DRAM 3272	Musical Theatre Dance II	2
DRAM 3302	Directing	3
DRAM 3363	History of Musical Theatre	3
Advanced DRAM or DANC Electives		3
Total Hours		**37**

Piano Performance Concentration

MUAP 3320	Applied Performance Level Major Lessons [5]	6
MUAP 4154	Applied Literature	1
MUAP 4155	Applied Pedagogy	1
Select from any MUEN 3000 level repeatable ensemble		8
MUSI 3212	Conducting II	2
MUSI 3249	Form and Analysis	2
MUSI 4248	Scoring and Arranging for Ensembles	2
Advanced Music Electives (MUSI, MUAP, or MUEN)		15
Total Hours		**37**

Vocal Performance Concentration

MUAP 3150	Piano for Vocal Majors	1
Select from any MUEN 3000 level repeatable ensemble		6
MUAP 3320	Applied Performance Level Major Lessons [5]	6
MUAP 4154	Applied Literature	1
MUAP 4155	Applied Pedagogy	1
MUSI 1262	Diction I	2
MUSI 2262	Diction II	2
MUSI 3212	Conducting II	2
MUSI 3249	Form and Analysis	2
MUSI 4248	Scoring and Arranging for Ensembles	2
Advanced Music Electives (MUSI, MUAP, or MUEN)		12
Total Hours		**37**

Admission to Degree Programs in Music

To be admitted to the music program, a student must audition with the appropriate applied faculty member. Transfer students must also pass an audition for admission to the program. After acceptance into the music program, music majors will participate in academic and performance assessment during each semester of enrollment for retention as a Music Major.

Students must apply to be admitted to the *Accelerated BM to MM in 5 Years* program after completing 60 hours with a minimum GPA of 3.25.

Additional Information for All Music Majors

All music majors must receive an overall grade of C or better in any music course that applies to their degree.

In addition, all music students should become familiar with the current Music Major Handbook (https://www.tarleton.edu/finearts/documents/music-major-handbook.pdf) and abide by the policies and procedures therein.

Additional Information for Bachelor of Music - All-Level Certification

Students in the Bachelor of Music with teacher certification program must be enrolled in an appropriate ensemble throughout the baccalaureate program for a minimum of seven semesters. The appropriate ensemble will be determined by the student's academic advisor and by the Director of Bands or Director of Choirs.

Applied Music

For all major and minor lessons, permission of the instructor is required.

Applied Music for Majors (1-3)

- 1220 Applied Music lower level
- 3220 Applied Music upper level
- 3320 Applied Music performance level

Applied Music for Minors or Non-Majors (.5-1.5)

- 1120 Applied Music lower level
- 3120 Applied Music upper level

Applied Music: Class Lessons (3-0)[6]

MUSI 1181	Piano Class I	1
MUSI 1182	Piano Class II	1
MUSI 2181	Piano Class III	1
MUSI 2182	Piano Class IV	1
Total Hours		**4**

Ensembles

Ensemble membership is open to all University students who complete a successful audition.

MUEN 3123	Wind Ensemble	1
MUEN 3128	Jazz Ensemble III	1
MUEN 3129	University Band	1
MUEN 4122	Ensemble	1
MUEN 3130	Symphonic Band	1
MUEN 3131	Percussion Ensemble	1
MUEN 3132	Jazz Ensemble I	1
MUEN 3133	Jazz Ensemble II	1
MUEN 3134	Jazz Combo	1
MUEN 3135	Woodwind Ensemble	1
MUEN 3136	Brass Ensemble	1
MUEN 3137	Collaborative Piano	1
MUEN 3138	Latin Band	1
MUEN 3141	University Singers	1
MUEN 3151	Chamber Choir	1
MUEN 3153	Texan Harmony	1
MUEN 3154	Texan Riders	1
MUEN 3152	Musical Theatre/Opera Workshop	1

Certificate in Music Business

MUSI 1330	Introduction to Music Business	3
Select 9 credit hours from the following:		9
MUSI 1320	Introduction to Audio Technology	
MUSI 3305	Digital Music and Beat Production	
MUSI 3330	Pro Tools	
MUSI 3320	Music Business II	
Total Hours		**12**

Certificate in Jazz Studies

MUSI 2360	Jazz Harmony	3
MUSI 3360	Jazz Improvisation I	3
MUSI 3361	Jazz Improvisation II	3
MUSI 4245	Jazz Arranging	2
Total Hours		**11**

Minor in Dance

DANC Courses (at least 6 hours advanced) [1]		18
DANC 1211	Ballet 1	

DANC 1310	Dance Theory	
DANC 2221	Jazz 1	
DANC 2231	Modern Dance I	
DANC 2241	Tap I	
DANC 2311	Ballet 2	
DANC 2320	Dance History	
DANC 2376	Choreography I	
DANC 3271	Musical Theatre Dance I	
DANC 3272	Musical Theatre Dance II	
DANC 3321	Jazz 2	
DANC 3331	Modern Dance II	
DANC 3341	Tap II	
DANC 3376	Choreography II	
DANC 4085	Dance Seminar	
DANC 4086	Dance Problems	
Total Hours		**18**

Minor in Music

MUSI 1311	Music Theory I	3
MUSI 1116	Aural Skills I	1
MUSI 1306	Music Appreciation	3
Music Elective [1]		5
Advanced Music Electives [1]		6
Total Hours		**18**

Minor in Music Business

MUSI 1330	Introduction to Music Business	3
MUSI 1320	Introduction to Audio Technology	3
MUSI 3320	Music Business II	3
MKTG 3312	Marketing	3
Electives - Select 6 credit hours from the following:		6
MUSI 3330	Pro Tools	
MUSI 3305	Digital Music and Beat Production	
ARTS 2348	Digital Art I	
COMM 3308	Digital Video Production	
or COMM 4301	Media Management	
ARTS 2356	Photography I	
ARTS 3360	Graphic Design I	
MGMT 4312	Entrepreneurship	
BCIS 3315	Web Development	
MKTG 4302	Services Marketing	
COMM 3321	Advertising	
Total Hours		**18**

Professors

- Jones, Prudence Ms.
- Robertson, Troy Dr.
- Robinson, David Dr.
- Westbrook, Gary Dr.

Associate professors

- Hawk, Heather Dr.
- Perevertailenko, Dmytro Dr.
- Richmond, Clarence Dr.
- Stavish, Carol Ms.

Assistant professors

- Allen, Ricardo Dr.
- Charles, Benjamin Dr.
- Ford, Dr. William
- Keyes, Carolyn Dr.
- Ripley, Jacinda Dr.
- Smith, Trevor Dr.
- Stone, Daniel Mr.

Instructor

- Dormaier, Michele Ms.
- Erxleben, Deanna Ms.

Visiting Faculty

- Greer, John Mr.

Adjunct Faculty

- Birk, Paul Mr.
- Burchill, Thomas Mr.
- Girton, Wade Mr.
- Hamilton, Heather Ms.
- Heatley, Michael Mr.
- Ivanov, Ivo Mr.
- Kent, Connor Mr.
- McLemore, Emily Dr.
- Murr, Estelle Dr.
- Siegel, Nathan Dr.
- Scott, Mark Mr.
- Westbrook, Ashley Ms.
- White, Tracy Ms.

Drama Courses

DRAM 1008. Production Crafts Practicum. 0 Credit Hours (Lecture: 0 Hours, Lab: 0 Hours).

DRAM 1112. Theatre Movement/Dance I. 1 Credit Hour (Lecture: 0 Hours, Lab: 2 Hours).
This course develops the student's awareness of the body as an instrument of communication in stage acting. Using the body as an instrument for performance action and bringing the actor to a deeper understanding of physical stage presence.

DRAM 1113. Theatre Voice, Diction and Dialect I. 1 Credit Hour (Lecture: 1 Hour, Lab: 0 Hours).
This class is to expand the actor's means of vocal expression by way of speech and accent/dialect.

DRAM 1120. Theatre Practicum I. 1 Credit Hour (Lecture: 0 Hours, Lab: 3 Hours).
Practicum in theater open to all students with emphasis on technique and procedures with experience gained in play productions.

DRAM 1121. Theatre Practicum II. 1 Credit Hour (Lecture: 0 Hours, Lab: 3 Hours).
Practicum in theater open to all students with emphasis on technique and procedures with experience gained in play productions.

DRAM 1230. Stagecraft I. 2 Credit Hours (Lecture: 2 Hours, Lab: 3 Hours).
The study of technical procedures employed in planning, building, painting, and lighting scenery. Backstage participation in play production as an active set builder and crew member will be required. Stage lighting will be approached from its practical and aesthetic value as a contributing factor to production. Lab fee: $2.

DRAM 1310. Introduction to Theatre. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A beginning theatre course providing a survey of the fields of theatre activities. This course provides an introductory knowledge of all types and phases of drama: literature, performance, and design.

DRAM 1341. Makeup. 3 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
Design and application of make-up for the stage; areas explored include theory, color, character analysis, materials, old age, three-dimensional, and fantasy make-up.

DRAM 1351. Acting I. 3 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
Introduction to the art of acting through basic theory and technique. Participation in college theatre production is encouraged.

DRAM 1352. Acting II. 3 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
An analytical approach to acting with emphasis on techniques of characterization, stage presence, and movement. Special attention will be given to the role of the actor as an integral member of an ensemble effort. Theories of acting and of acting styles will also be studied. Participation in a college theatre production is encouraged.

DRAM 2112. Theatre Movement/Dance II. 1 Credit Hour (Lecture: 0 Hours, Lab: 2 Hours).
This course uses the body as an instrument for performance action and bringing the actor to a deeper understanding of physical stage presence.

DRAM 2113. Theatre Voice, Diction and Dialect II. 1 Credit Hour (Lecture: 1 Hour, Lab: 0 Hours).
This class is to expand the actor's means of vocal expression by way of speech and accent/dialect. Content will include the sound symbols of the International Phonetic Alphabet. These identification skills form a bridge to vocal transformation into character accents.

DRAM 2120. Theatre Practicum III. 1 Credit Hour (Lecture: 0 Hours, Lab: 3 Hours).
Practicum in theater open to all students with emphasis on technique and procedures with experience gained in play productions.

DRAM 2121. Theatre Practicum IV. 1 Credit Hour (Lecture: 0 Hours, Lab: 3 Hours).
This course will replace the current course DRAM 1220:Theatre Practicum; this course will lower the credit hour from two to one.

DRAM 2231. Stagecraft II. 2 Credit Hours (Lecture: 2 Hours, Lab: 3 Hours).
The study of theatrical costuming and its application in contemporary theatre. Theory on costuming will be applied in laboratory situations and through theatrical production. Lab fee: $2.

DRAM 2232. Stagecraft III. 2 Credit Hours (Lecture: 2 Hours, Lab: 3 Hours).
Students will learn the technical processes and theoretical instruction on becoming theatrical electrician and prop master. Topics covered include workplace safety, basic electrical procedures, theatrical electrical production techniques, construction of handheld props, furniture, puppets, and mask building. Lab fee: $2.

DRAM 2255. Script Analysis. 2 Credit Hours (Lecture: 2 Hours, Lab: 0 Hours).
An introduction to script analysis for production with an emphasis on close reading, understanding narratives, and the importance of story and audience reception.The course offers general guidelines for reading and thinking about plays and understanding the basic potentials of a play’s construction.

DRAM 2333. Theatrical Drawing and Drafting. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Principles and practice in the techniques of drafting traditional/nontraditional types of stage scenery. Principles and practice sketching costumes, scenery, stage properties in preparation for Scenic Design and Costume Design.

DRAM 2361. History of the Theatre I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Theatre from its origins to 1750; plays, playwrights, actors, costumes, scenic arts of each period as related to events of period and to contemporary theatre.

DRAM 2362. History of the Theatre II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Theatre since 1750; plays, playwrights, actors, costumes, scenic arts of each period as related to events of period and to contemporary theatre. Prerequisite: DRAM 2361 or approval of department head.

DRAM 3112. Theatre Movement/Dance III. 1 Credit Hour (Lecture: 0 Hours, Lab: 2 Hours).
This course provides advanced training in awareness and development of the body for creation and communication in theatre. Emphasis will be made on creating awareness and training in stylized dramas.

DRAM 3113. Theatre Voice, Diction and Dialect III. 1 Credit Hour (Lecture: 1 Hour, Lab: 0 Hours).
This class is to expand the actor's means of vocal expression by way of speech and accent/dialect. Course work will focused on a strong foundation in breath support, release, resonance, vocal variety and the continue use of the International Phonetic Alphabet (IPA).

DRAM 3209. Portfolio Development and Career Management. 2 Credit Hours (Lecture: 2 Hours, Lab: 0 Hours).
This course will be a study of portfolio development and career management for designers, stage managers and technicians. Students will create and development a professional resume and a portfolio of accomplished production experience. Prerequisite: 60 credit hours.

DRAM 3210. Directing Young Actors. 2 Credit Hours (Lecture: 2 Hours, Lab: 0 Hours).
This course will address directing young actors and assist any teacher in directing theatre activities. During the course, students will direct plays or scenes.

DRAM 3271. Musical Theatre Dance I. 2 Credit Hours (Lecture: 0 Hours, Lab: 2 Hours).
This course is a dance class as it pertains to musical theatre styles and performance. Specific styles may vary by semester. Participation in college theatre production is encouraged. Prerequisite: N/A Lab fee: $2.

DRAM 3272. Musical Theatre Dance II. 2 Credit Hours (Lecture: 0 Hours, Lab: 2 Hours).
This course is the study of dance, movement, and staging for musical theatre. It includes strategies for learning and performing dance combinations as they occur in a professional dance audition. Students will continue to develop fundamental dance technique and apply it to musical theatre dance. Course culminates in student choreographed/staged works. Lab fee: $2.

DRAM 3300. Scene Design and Construction. 3 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
The study of the elements of a design used to capture mood, atmosphere, and idea of a play; designing to scale, and drawing ground plans and elevations; technical elements of scene construction. Students must work set crew for theatrical production as laboratory.

DRAM 3301. Costume Design and Construction. 3 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
Studies in stage costuming; history, characterization, fabrics, construction and design. A lecture and laboratory course including student planning, illustration, construction, and designing of costumes for University productions. Prerequisite: DRAM 2231: Stagecraft II.

DRAM 3302. Directing. 3 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
Basic techniques for the stage including scene interpretation, pictorial composition, movement and rehearsal routine. Students will direct and supervise production of short plays.

DRAM 3303. Lighting for the Theatre. 3 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
History and techniques of lighting for the stage. Major emphasis is placed on design and practical application. Prerequisite: DRAM 1230:Stagecraft 1 Lab fee: $2.

DRAM 3304. Sound for the Theatre. 3 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
Techniques of sound for the stage, including multi-track recording, editing, and the study of microphones. Major emphasis is placed on practical application. Prerequisite: DRAM 1230: Stagecraft I Lab fee: $2.

DRAM 3305. Theatre for Young People. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The history, philosophy, production, and performance of theatre for young people.

DRAM 3306. Scenic painting. 3 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
An introductory course introducing the steps, techniques and tools of scenic artistry. Through hands-on projects you will learn the basic foundation for painting in the theatre.

DRAM 3307. Vectorworks; Computer Aided Drafting. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is an advanced level of theatrical drafting to explore computer aided drafting in scenic and lighting design in theatre. We will be focusing on the drafting program Vectorworks.

DRAM 3308. Advanced Stagecraft. 3 Credit Hours (Lecture: 2 Hours, Lab: 3 Hours).
This course will be a study in advanced topics in stagecraft technology, including: advanced rigging techniques, show control, production planning, electronic controls, pneumatics, structural design for the stage, and welding.

DRAM 3351. Acting III. 3 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).
An analytical approach to acting with emphasis on the study and practice of techniques for realism and naturalism typically used in performing works by the modern realists. Participation in a college theatre production is encouraged. Prerequisite: DRAM 1352.

DRAM 3352. Devised Theatre. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introductory course in devised theatre, the process of theatre creation in a collaborative manner. The ensemble will create an original or adapted theatrical piece.

DRAM 3363. History of Musical Theatre. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will examine the history and significance of America’s largest contribution to the world of theatre; the book musical. In this course we will explore the context of musical theatre from practitioner to performance throughout history and today. The course emphasizes the development of musical theatre beginning with the operetta and early minstrel shows through the Broadway hits of the Twenty First Century. Additionally, this course introduces students to the art of critique in regard to musical theatre.

DRAM 3373. Theatre for the Classroom. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Theories and practical application of Theatre in the classroom with children and adolescents.

DRAM 3374. Writing for the Stage and Screen. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This class is an introduction to the art of scriptwriting and screenwriting. Students will discover how to tell gripping stories and learn the fundamental principles and techniques of shaping those stories for the stage and for the screen. Explore ways of building compelling characters, writing effective and memorable dialogue, and structuring dramatic and cinematic acts and scenes.

DRAM 4086. Theatre Problems. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 1-6 Hours).
A course featuring independent study in theatre. Research and discussion under personal direction of an instructor. Topics will vary according to student need. Open to students of senior classification with approval of department head.

DRAM 4300. Shakespeare. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study in depth of representative types of Shakespeare's dramas and poetry. Credit for both ENGL 4300 and DRAM 4300 will not be awarded. ENGL 4300 and DRAM 4300 are cross-listed courses. Prerequisites: ENGL 1301, 1302, and 3 hours sophomore ENGL.

DRAM 4302. Directing II. 3 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
Advanced techniques for the stage including scene interpretation, pictorial composition, movement and rehearsal routine. Students will direct and supervise production of a 40-minute maximum/One Act Play. We will adhere to UIL rules as much as possible as a guide.

DRAM 4304. Dramatic Theory & Criticism. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
A study of the philosophy of aesthetics in theatre and the arts. From the works of various philosophers, directors and actors beginning with Aristotle to contemporary writers.

DRAM 4307. Theatre Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
Theatre management, promotion, finances, organization, emphasis on contract negotiations, planning and use of facilities. A lecture-laboratory course applied to a producing theatre operation and plant. Lab fee: $2.

DRAM 4352. Acting IV. 3 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).
This course will be an exploration of the acting styles and related social conventions in major eras throughout history. This course will have an emphasis on the training in approaches to such playwrights as the Greeks, Shakespeare, Moliere, Restoration and 18th century playwrights. Prerequisite: DRAM 3351.

DRAM 4384. Internship. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Minimum of 6 weeks of full-time experience with a professional theatre company approved by the department head. (May be repeated once for a total of 6 hours of academic credit.) Prerequisites: Sophomore standing or permission of department head.

DRAM 4385. Theatre Seminar. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 0 Hours).
A course open to Theatre students. Topics vary according to student need. May be taken up to three times for credit, for a maximum of 9 hours.

Music Courses

MUSI 1000. Recital Attendance. 0 Credit Hours (Lecture: 0 Hours, Lab: 0 Hours).
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MUSI 1101. Marching Band. 1 Credit Hour (Lecture: 1 Hour, Lab: 4 Hours).
Marching Band membership is open to all students of the University with approval of the director. Activities include half-time performances, pep rallies, parades, and other concerts. Prerequisites: Prior marching band experience in high school or junior college or approval of department head. Credits may substitute for required P ED and may be repeated.

MUSI 1116. Aural Skills I. 1 Credit Hour (Lecture: 1 Hour, Lab: 1 Hour).
Singing tonal music in treble, bass, alto, and tenor clefs. Aural study, including dictation, of rhythm, melody, and diatonic harmony. Lab fee: $15.

MUSI 1117. Aural Skills II. 1 Credit Hour (Lecture: 1 Hour, Lab: 1 Hour).
Continued development of singing tonal music in treble, bass, alto, and tenor clefs. Continued aural study, including dictation, of rhythm, melody, and diatonic harmony. Prerequisite: MUSI 1116. Lab fee: $2.

MUSI 1160. Italian Diction. 1 Credit Hour (Lecture: 1 Hour, Lab: 1 Hour).
Italian pronunciation for singers. Lab fee: $10.

MUSI 1166. Woodwind Class I. 1 Credit Hour (Lecture: 1 Hour, Lab: 1 Hour).
Instruction on basic woodwind instruments for music majors; maintenance of instruments; evaluation of materials and literature. Students develop a basic technique on specific instruments. Lab fee: $2.

MUSI 1167. Woodwind Class II. 1 Credit Hour (Lecture: 1 Hour, Lab: 1 Hour).
Instruction on basic woodwind instruments for music majors; maintenance of instruments; evaluation of materials and literature. Students develop a basic technique on specific instruments. Lab fee: $2.

MUSI 1178. Brass Class I. 1 Credit Hour (Lecture: 1 Hour, Lab: 1 Hour).
Performance instruction on basic brass instruments for music majors; maintenance of instruments; evaluation of materials and literature. Students develop a basic technique on two instruments. Lab fee: $15.

MUSI 1179. Brass Class II. 1 Credit Hour (Lecture: 1 Hour, Lab: 1 Hour).
Continued instruction on basic brass instruments for music majors; maintenance of instruments; evaluation of materials and literature. Students develop a basic technique on at least one low brass instrument. Lab fee: $15.

MUSI 1181. Piano Class I. 1 Credit Hour (Lecture: 1 Hour, Lab: 2 Hours).
Beginning piano class designed to develop keyboard and musicianship skills, including fundamental technique, scale playing, sight reading, harmonization of melodies, and accompaniment. The course is intended for music majors in passing the Piano Proficiency Examination. All other majors and undeclared majors must have the permission of the course instructor to register. Lab fee: $2.

MUSI 1182. Piano Class II. 1 Credit Hour (Lecture: 1 Hour, Lab: 2 Hours).
A continuation of Piano I, designed to develop keyboard and musicianship skills, including fundamental technique, scale playing, sight reading, harmonization of melodies, and accompaniment. The course is intended for music majors in passing the Piano Proficiency Examination. All other majors and undeclared majors must have the permission of the course instructor to register. Prerequisite: MUSI 1181 Lab fee: $2.

MUSI 1188. Percussion Class I. 1 Credit Hour (Lecture: 1 Hour, Lab: 1 Hour).
Fundamental performance techniques on the most frequently used percussion instruments, both of definite and indefinite pitch; conventions of notation, instrument maintenance, evaluation of materials, and literature. For music majors. Lab fee: $2.

MUSI 1195. Strings Class I. 1 Credit Hour (Lecture: 1 Hour, Lab: 1 Hour).
Beginning string class for music majors; maintenance of instruments, evaluation of materials and literature. Students develop a basic performance technique on two instruments. Lab fee: $2.

MUSI 1262. Diction I. 2 Credit Hours (Lecture: 2 Hours, Lab: 0 Hours).
Instruction in the International Phonetic Alphabet (IPA) and its symbols used in English, German, French, and Italian vocal repertoire. Application of correct diction to German vocal literature.

MUSI 1303. Fundamentals of Music. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An examination of the basic structure of Western music, musical styles, form, different periods, and the dynamics of musical expression and appreciation. Introduces students to elements of music theory common to many cultures. Topics covered in this course range from the most fundamental theoretical concepts in Western art music to developing interpretive analyses and holding musicological conversations that engage with scholarly readings. The course may be taken by all who desire to develop basic teamwork and critical thinking through music.

MUSI 1306. Music Appreciation. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides opportunities to become familiar with the basic elements of music. Emphasis is on learning to listen to music and on the role it plays within the wider contexts of history and society. Listening materials are drawn from a variety of sources: classical music, non-Western music, American popular music (particularly jazz, country, and rock), and the American folk tradition.

MUSI 1310. Popular Music in America. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introductory study of popular music in the U.S., emphasizing the development and application of analytical skills oriented toward the popular arts. Concert attendance and/or listening requirements.

MUSI 1311. Music Theory I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduction to music fundamentals, staff, clefs, key signatures, scales, time signatures and notation; meter and rhythm; chords and harmony; and melodic organization and structure.

MUSI 1312. Music Theory II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Study of diatonic harmony, elementary counterpoint, and part writing; harmonization of melodies in eighteenth-century style. Prerequisite: MUSI 1311.

MUSI 1320. Introduction to Audio Technology. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
Provides an introduction to the use of audio technology in making analog and digital recordings with an emphasis on musical instruments and applications, as well as live audio productions and videos to audio. Students will gain experience with studio facilities and equipment, digital audio, modern microphone technique, and modern recording processes in a variety of sound situations when applicable to recording musical instruments and performances. Lab fee: $15.

MUSI 1330. Introduction to Music Business. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
A survey of the various facets of the current and evolving music industry, highlighting areas where music and business intersect. Topics include an overview of key principles, terms, and practices; basic principles of marketing and promoting music; and careers in the commercial music industry. Lab fee: $15.

MUSI 2116. Aural Skills III. 1 Credit Hour (Lecture: 1 Hour, Lab: 1 Hour).
Singing more difficult tonal music, including melodies with any diatonic leap possible and a wider variety of rhythms. Aural study, including dictation of more complex rhythm and melody. Prerequisites: MUSI 1116 and MUSI 1117. Lab fee: $15.

MUSI 2117. Aural Skills IV. 1 Credit Hour (Lecture: 1 Hour, Lab: 1 Hour).
Singing more difficult tonal music, including chromatic, modulating and melodies; and modal melodies. Continued aural study, including dictation of more complex rhythm and melodies. Prerequisite: MUSI 1116, 1117, 2116. Lab fee: $2.

MUSI 2160. German Diction. 1 Credit Hour (Lecture: 1 Hour, Lab: 1 Hour).
German pronunciation for singers. Lab fee: $10.

MUSI 2161. French Diction. 1 Credit Hour (Lecture: 1 Hour, Lab: 1 Hour).
French pronunciation for singers. Lab fee $10.

MUSI 2181. Piano Class III. 1 Credit Hour (Lecture: 3 Hours, Lab: 1.5 Hour).
Section III of the piano class sequence designed to develop keyboard and musicianship skills, including fundamental technique, scale playing, sight reading, harmonization of melodies, and accompaniment. The course is intended for music majors in passing the Piano Proficiency Examination. It is an elective for those students needing additional instruction in order to pass the proficiency. All other majors and undeclared majors must have the permission of the course instructor to register. Prerequisites: MUSI 1181 and MUSI 1182 Lab fee: $2.

MUSI 2182. Piano Class IV. 1 Credit Hour (Lecture: 3 Hours, Lab: 0 Hours).
This is the fourth semester of a four-semester sequence designed to develop keyboard and musicianship skills, including fundamental technique, scale playing, sight reading, harmonization of melodies, and accompaniment. The course is intended for music majors in passing the Piano Proficiency Examination. All other majors and undeclared majors must have the permission of the course instructor to register. Lab fee: $10.

MUSI 2262. Diction II. 2 Credit Hours (Lecture: 2 Hours, Lab: 0 Hours).
Continuation of studies in diction applied to vocal literature, focusing on French and Italian languages. Prerequisite: MUSI 1262.

MUSI 2311. Music Theory III. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Continuation of the study of diatonic harmony and counterpoint; elementary modulation, an introduction to chromatic harmony, modal harmony, and extended harmony. Prerequisites: MUSI 1311 and MUSI 1312.

MUSI 2312. Music Theory IV. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of chromatic harmony in tonal music of the late 19th century and an introduction to 20th century post-tonal practices. Prerequisites: MUSI 1311, 1312, and 2311.

MUSI 2350. Music Cultures of the World. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is an introduction to the manifold world of music and its cultural contexts. It aims to provide students with an understanding of the significance of music as an art form and as a means of cultural expression. Through listening, analysis, and discussion, students will explore various musical traditions and their connections to history, culture, and society. Topics covered in the course will draw from different regions in the world including Africa, Asia, Europe, the Middle East, and the Americas. Students will explore various musical genres such as folk, classical, popular, and sacred music and learn about the instruments, rhythms, melodies, and forms that are unique to each tradition.

MUSI 2360. Jazz Harmony. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of jazz harmony and structure, including chord and scale construction and nomenclature. Emphasis will be be placed on the spelling, naming, and aural recognition of jazz chords, scales, and basic harmonic structures. Prerequisite: MUSI 1312.

MUSI 3000. Junior Recital. 0 Credit Hours (Lecture: 0 Hours, Lab: 0 Hours).
A half recital (25 minutes of music) that fulfills the requirement of music majors in the Bachelor of Music degree.

MUSI 3100. Marching Band. 1 Credit Hour (Lecture: 1 Hour, Lab: 4 Hours).
Marching Band membership is open to all students of the University with approval of the director. Activities include half-time performances, pep rallies, parades, and other concerts. Prerequisites: Prior marching band experience in high school or junior college or approval of department head. Course may be repeated for credit. Lab fee: $10.

MUSI 3105. Jazz Piano Techniques. 1 Credit Hour (Lecture: 1 Hour, Lab: 2 Hours).
Introductory jazz piano class designed to develop jazz keyboard and musicianship skills, including fundamental technique, chord structure, chord notation comprehension, voicings, sight reading, and accompaniment. The course is part of the jazz certificate sequence and intended for students interested in the jazz genre. Prerequisite: Passing score on the Piano Proficiency Exam.

MUSI 3116. Interdisciplinary Music Methods. 1 Credit Hour (Lecture: 1 Hour, Lab: 2 Hours).
Organization, rehearsal procedures, and public performance practices of ensembles and teaching methods for vocal and instrumental music. Expanding pedagogy from instrumental or vocal focus to include knowledge and skill in both disciplines.

MUSI 3202. Artist and Self Management. 2 Credit Hours (Lecture: 2 Hours, Lab: 1 Hour).
This course provides an overview of the practices and requirements needed to develop, maintain, and manage an artist's/self career in today music industry. Topics include basic management principles, promotion strategies, current revenue streams, and coaching/leading artists to their career goals. Lab fee: $2.

MUSI 3211. Conducting I. 2 Credit Hours (Lecture: 2 Hours, Lab: 1 Hour).
Introduction of conducting techniques, rehearsal procedures, development of interpretive skills in music. Lab fee: $2.

MUSI 3212. Conducting II. 2 Credit Hours (Lecture: 2 Hours, Lab: 1 Hour).
Special emphasis on instrumental and choral conducting techniques. Lab fee: $2.

MUSI 3226. History of Music I. 2 Credit Hours (Lecture: 2 Hours, Lab: 0 Hours).
Study of history, social setting, and style of Western art music from Greek antiquity to the end of the Renaissance period. MUSI 2311 or approval of department head.

MUSI 3229. World Music. 2 Credit Hours (Lecture: 2 Hours, Lab: 0 Hours).
Historical and analytical survey of the great variety of musical styles from around the world. Music cultures of sub-Saharan Africa, India, indigenous America, and Japan are among those explored. Emphasizes the complex interrelationships of music to culture, society, and daily life.

MUSI 3245. Class Composition. 2 Credit Hours (Lecture: 2 Hours, Lab: 1 Hour).
Advanced instruction in composition; the writing and study of small- and larger-form musical compositions employing contemporary styles and techniques. May be taken 2 times for credit. Prerequisite: approval of instructor. Lab fee: $5.

MUSI 3249. Form and Analysis. 2 Credit Hours (Lecture: 2 Hours, Lab: 1 Hour).
The study of techniques of musical analysis as applied to different forms of music. Discussion will address (but not limited to) forms found in the Baroque, Classical, Romantic, Post-Romantic, and Contemporary eras using a variety of analysis techniques. Prerequisites: MUSI 1311, 1312, 2311, and 2312.

MUSI 3300. Music Publishing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the creative and administrative aspects of music publishing including, but not limited to, contracts, music licensing, copyright law, and role of performance rights organizations.

MUSI 3305. Digital Music and Beat Production. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
This course explores the tools and techniques needed to produce music through desktop music production. digitally produced music is relevant to terrestrial radio, film & TV scores, commercial advertisements, electronic dance, and internet radio.

MUSI 3315. Developmental Musical Experiences. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Study and appraisal of music teaching techniques, elementary music literature, learning activities, curricular plans and materials essential to the sequential development of musical learning in the elementary school. Designed to provide knowledge of psychology, theory and practice of music education in the elementary schools. Emphasis is placed upon the nature, organization and maintenance of the elementary music program. Prerequisite: junior or senior-level status.

MUSI 3320. Music Business II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Continued exploration of the music industry including artist and self-management, music law, and media distribution and publication. Topics will include developing, maintaining, and managing an artist's career as well as promotion strategies, current revenue streams, and coaching/leading artists toward their career goals. Additional topics will include creative and administrative aspects of music publishing. Prerequisite: MUSI 1330.

MUSI 3325. Jazz History. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An in-depth study of the recordings, history, major figures, musical forms and social importance of an original American art form. Principal styles to be covered include ragtime, blues, Dixieland, big band swing, bop, cool, hard bop, free, fusion and funk. This course fulfills the core visual and performing arts requirement.

MUSI 3327. Music History I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
Study of the history, social setting and style of western music from antiquity through the Baroque period.

MUSI 3328. Music History II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
Study of the history, social setting and style of western music during the Classical, Romantic, and Contemporary periods.

MUSI 3330. Pro Tools. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Instruction in Pro Tools, the industry standard software for digital recording and editing. This is the most widely used application for post-production, video editing, and mixing for film, video, and multi-media. Prerequisite: MUSI 1320.

MUSI 3335. Choral Techniques. 3 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).
Choral techniques, materials and rationale for the development of superior choral ensembles to include: budgeting, acoustical considerations, music selection criteria, historical development of choral music and style, programming, public relations, sight reading, and development of a philosophy of music. Prerequisite: MUSI 3211.

MUSI 3351. Music Content Area Literacy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course presents essential literacy skills and examines ways in which they may be developed in K-12 music classrooms. A variety of instructional strategies for reading, writing, listening, and critical thinking will be presented to help future music educators guide K-12 students to understand and express their musical experiences. Prerequisites: ENGL 1301, ENGL 1302, and a sophomore level English.

MUSI 3360. Jazz Improvisation I. 3 Credit Hours (Lecture: 2 Hours, Lab: 1 Hour).
Offers the jazz-oriented student an organized approach to learning how to improvise in the jazz idiom as expressed by musical performance. Prerequisite: MUSC 2360.

MUSI 3361. Jazz Improvisation II. 3 Credit Hours (Lecture: 2 Hours, Lab: 1 Hour).
Offers the jazz-oriented student an organized approach to learning how to improvise in the jazz idiom as expressed by musical performance. This course is a continuation of MUSI 3260 Jazz Improvisation I Prerequisite: MUSI 3360.

MUSI 4000. Marching Band. 0 Credit Hours (Lecture: 0 Hours, Lab: 0 Hours).
Marching Band membership is open to all students of the University with approval of the director. Activities include half-time performances, pep rallies, parades, and other performances. Prerequisites: Prior marching band experience in high school or junior college or approval of department head and director.

MUSI 4085. Music Seminar. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 0 Hours).
Design of course will focus on current topics and issues in music of interest to a group of students. May be repeated twice for credit as topic and/or objectives of the course change. Prerequisite: Junior classification.

MUSI 4086. Music Problems. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 1-6 Hours).
A directed study of selected problems in music.

MUSI 4133. Capstone Course in Music. 1 Credit Hour (Lecture: 1 Hour, Lab: 12 Hours).
The capstone experience is the culmination of undergraduate music study and provides students with an opportunity to make their personal statement of preparedness for a post-college life with music. Projects may include a 50-minute solo recital, a lecture-recital, or an undergraduate thesis or research paper. In conjunction with the student's advisor, study abroad and other formats may be acceptable. Prerequisites: Senior standing. Music majors seeking education certification must take this course before the semester in which they are student teaching. Lab fee: $2.

MUSI 4211. Piano Literature. 2 Credit Hours (Lecture: 2 Hours, Lab: 0 Hours).
This course will encompass the study of piano literature from the Renaissance period to present day with emphasis given to the Classical, Romantic, and Contemporary eras. Genres include sonata, suite, concerto, and chamber works with piano of varying cultures.

MUSI 4212. Vocal Literature. 2 Credit Hours (Lecture: 2 Hours, Lab: 0 Hours).
This course will encompass the study of solo vocal literature from the Renaissance period to present day. Emphasis will be given to the development of German and French art song in Europe.

MUSI 4213. Instrumental Literature. 2 Credit Hours (Lecture: 2 Hours, Lab: 0 Hours).
This course will encompass the study of literature for band, jazz ensemble and orchestra, as well as solos and small ensemble groups. Students will explore and analyze significant composers and their literature in each of the historical periods through the 21st century. Prerequisite: Junior level in applied instrumental lessons or consent of the instructor.

MUSI 4242. Band Techniques. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduction and materials of band techniques to include drill design and the development of the marching ensemble; the organization, administration, programming, repertoire, band literature, budgeting, and historical development of the modern concert wind ensemble; the development of a functional philosophy of music.

MUSI 4245. Jazz Arranging. 2 Credit Hours (Lecture: 2 Hours, Lab: 1 Hour).
Arranging in the jazz and commercial idioms with emphasis on large jazz ensemble (big band). Prerequisite: MUSI 2312 Lab fee: $2.

MUSI 4248. Scoring and Arranging for Ensembles. 2 Credit Hours (Lecture: 2 Hours, Lab: 1 Hour).
A practical study of the skill of scoring music for various instrumental and choral groups. Projects in adapting music from a variety of sources. Emphasis is placed on transcribing and arranging for elementary, junior, and senior high ensembles. Prerequisites: MUSI 2312 or consent of instructor and permission of department head.

MUSI 4251. Piano Pedagogy. 2 Credit Hours (Lecture: 2 Hours, Lab: 0 Hours).
This course will encompass the study of piano pedagogy from beginner level through intermediate and advanced level piano study, including present and past techniques of piano instruction. Prerequisite: Must be at the junior level of applied piano lessons or have consent of the instructor.

MUSI 4252. Vocal Pedagogy. 2 Credit Hours (Lecture: 2 Hours, Lab: 1 Hour).
Teaching voice majors how to teach singing. Includes physiology of the vocal mechanism and the application of various techniques appropriate in developing and correcting issues with the voice. Appropriate repertoire for varying levels and voice types will be covered as well as basic business aspects of private studio teaching. Prerequisite: Junior or Senior level music majors in applied voice who have passed the Applied Proficiency Exam. Lab fee: $5.

MUSI 4253. Instrumental Pedagogy. 2 Credit Hours (Lecture: 2 Hours, Lab: 1 Hour).
This course will focus on the study of instrumental pedagogy, from beginner level through advanced study, used primarily in one-on-one instruction in the studio. Lab fee: $10.

MUSI 4301. Music Business Internship. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An approved and supervised educational project in which the qualifying student participates in a professional music organization as an intern for a select period of time. This course is intended as the capstone experience for the Bachelor of Arts in music degree with an emphasis in music business. Prerequisites: Senior standing, the completion of required music courses and other courses in the Music Business emphasis, and the approval of intern coordinator.

MUSI 4342. Band Techniques. 3 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).
Introduction and materials of band techniques to include drill design and the development of the marching ensemble; the organization, administration, programming, repertoire, band literature, budgeting, and historical development of the modern concert wind ensemble; the development of a functional philosophy of music. Prerequisite: MUSI 3211.

MUSI 4343. Marching Band Methods. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Marching Band Methods teaches music education majors how to administer a marching band program. Areas of administration are: show design, scheduling, programming, competition. Students will use software to learn to design marching band shows, and review other software useful in administering a marching band program.

MUSI 4385. Music Seminar. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Content varies according to the needs of students and opportunities available. When topic varies, course may be repeated for credit. Prerequisite: Junior classification or approval of department head.

Department of Visual Arts and Design

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The Department of Visual Arts & Design offers programs in Studio Art and Digital Media Studies. The department offers a Bachelor of Fine Arts in Art (with a concentration in Studio Art), a Bachelor of Fine Arts degree in Art with Teacher Certification, and a Bachelor of Science in Digital Media Studies (with different concentrations in Graphic Design, Multimedia Production and Video Game Design).

The department also offers minors in the following areas: Art, Art History, Digital Media Studies, and Film Production.

The Bachelor of Fine Arts Degree in Art

General Education Requirements (p. 396) [1]		42
ENGL 1301 [shared] [WI (p. 396)]	Composition I	
ENGL 1302 [shared] [WI (p. 396)]	Composition II	
Sophomore Literature [Shared]		
ARTS 1303 [shared]	Art History I	
ARTS 1304	Art History II	3
ARTS 1311	Design I	3
ARTS 1312	Design II	3
ARTS 1316	Drawing I	3
ARTS 1317	Drawing II	3
ARTS 2316	Painting I	3
ARTS 2348	Digital Art I	3
ARTS 2326	Sculpture I	3
ARTS 2356	Photography I	3
ARTS 3332 [WI (p. 396)]	Contemporary Movements in Art	3
ARTS 3333	Art History of the Non-Western World	3
ARTS 4390 [WI (p. 396)]	Art/ Digital Media Portfolio Capstone I	3
ARTS 4391	Art/ Digital Media Portfolio Capstone II	3
FINA 3301 [WI (p. 396)]	The Arts in Contemporary Society	3
Total Hours		**84**

Studio Art

Advanced ARTS Electives	21
Electives	3

Advanced Electives	12
Total Hours	**36**

Teacher Certification

Choose one of the following [Shared]:		
COMM 1311	Introduction to Speech Communication	
COMM 1315	Public Speaking	
COMM 2302	Business and Professional Speaking	
ARTS 3311	Experimental Media Studio	3
ARTS 3341	Painting II	3
ARTS 3310	Introduction to Art Education	3
Advanced ARTS Electives		3
EDUC 3321 [WI (p. 396)]	Foundations of Teaching: Middle and Secondary Classrooms	3
EDSP 4361	Teaching Strategies for Adolescent Students with Learning Disabilities	3
EDUC 4331	Instructional Strategies for Middle and Secondary Classrooms	3
EDUC 4335	Issues of Professionalism	3
EDUC 4690	Clinical Teaching	6
Select one of the following:		3
PSYC 2308	Child Psychology	
PSYC 3303	Educational Psychology	
CHFS 3300	Child Development: Theory, Research, and Practice	
READ 3351 [WI (p. 396)]	Content Area Literacy	3
Total Hours		**36**

The Bachelor of Science Degree in Digital Media Studies

General Education Requirements (p. 396)		**42**
ENGL 1301 [shared] [WI (p. 396)]	Composition I	
ENGL 1302 [shared] [WI (p. 396)]	Composition II	
Sophomore Level Literature [shared]		
MATH 1314 [shared]	College Algebra	
ARTS 1316	Drawing I	3
ARTS 2348	Digital Art I	3
ARTS 4390 [WI (p. 396)]	Art/ Digital Media Portfolio Capstone I	3
ARTS 4391	Art/ Digital Media Portfolio Capstone II	3
COSC 1302	Introduction to Computer Science	3
Advanced Art Electives (See your Advisor) - Choose from the following:		9
ARTS 3360	Graphic Design I	
ARTS 3362	Narrative Illustration I	
ARTS 3363	Tradigital Animation I	
ARTS 3365	Special Effects and Compositing I	
ARTS 3366	3D Video Game Environment I	
ARTS 4370	Interaction Design	
Total Hours		**66**

Game Design

ARTS 2344	Game Design	3
ARTS 3383	3D Modeling	3
ARTS 3377	Game Production I	3
ARTS 4377	Game Production II	3
Advanced Art Electives (See your Advisor) - Choose from the following:		6
ARTS 3364	3D Animation I	
ARTS 3365	Special Effects and Compositing I	
ARTS 3366	3D Video Game Environment I	
ARTS 4364	3D Animation II	
ARTS 4365	Special Effects and Compositing II	
ARTS 4366	3D Video Game Environment II	
ARTS 4367	3D Rendering and Lighting	
ARTS 4372	Collaborative Production	
ARTS 4370	Interaction Design	
COSC 1436	Programming Fundamentals I	4
COSC 2421	C++ Programming	4
COSC 2431	Java Programming	4
COSC 3389 [WI (p. 396)]	Software Engineering I	3
MATH 1316	Plane Trigonometry	3
or MATH 2412	Precalculus Math	
MATH 2413	Calculus I	4

MATH 3310	Discrete Mathematics	3
Electives		11
Total Hours		**54**

Graphic Design

ARTS 1311	Design I	3
ARTS 2313	Graphic Design Fundamentals	3
ARTS 2356	Photography I	3
ARTS 3372	Typography	3
ARTS 3373	Publication Design I	3
ARTS 3374	Digital Media Design I	3
ARTS 4373	Graphic Design Production	3
BCIS 3315	Web Development	3
ENGL 3309 [WI (p. 396)]	Professional Writing	3
ENGL 3312	Professional Writing and Visual Design	3
Advanced Art Electives (See Your Advisor) - Choose from the following:		12
ARTS 3360	Graphic Design I	
ARTS 3361	Photography II	
ARTS 3362	Narrative Illustration I	
ARTS 3363	Tradigital Animation I	
ARTS 3368	Narrative Film Arts I	
ARTS 3371	Printmaking	
ARTS 4360	Graphic Design II	
ARTS 4361	Photography III	
ARTS 4362	Narrative Illustration II	
ARTS 4363	Tradigital Animation II	
ARTS 4368	Narrative Film Arts II	
ARTS 4370	Interaction Design	
ARTS 4372	Collaborative Production	
ARTS 4384	Internship in Art or Digital Media	
Electives		12
Total Hours		54

Media Production

ARTS 1311	Design I	3
ARTS 2356	Photography I	3
BCIS 3315	Web Development	3
COMM 3308	Digital Video Production	3
ENGL 3309 [WI (p. 396)]	Professional Writing	3
ENGL 3312	Professional Writing and Visual Design	3
Advanced Art Electives (See your Advisor) - Choose from the following:		15
ARTS 3360	Graphic Design I	
ARTS 3361	Photography II	
ARTS 3362	Narrative Illustration I	
ARTS 3363	Tradigital Animation I	
ARTS 3364	3D Animation I	
ARTS 3365	Special Effects and Compositing I	
ARTS 3368	Narrative Film Arts I	
ARTS 3369	Experimental Photography	
ARTS 3372	Typography	
ARTS 3373	Publication Design I	
ARTS 3374	Digital Media Design I	
ARTS 4360	Graphic Design II	
ARTS 4361	Photography III	
ARTS 4362	Narrative Illustration II	
ARTS 4363	Tradigital Animation II	
ARTS 4364	3D Animation II	
ARTS 4368	Narrative Film Arts II	
ARTS 4370	Interaction Design	
ARTS 4375	Aerial Photography and Video	
Advanced Electives (See your Advisor) - Choose from the following:		9
ARTS 3332 [WI (p. 396)]	Contemporary Movements in Art	
ARTS 3334	History of Photography and Lens-Based Media	
ARTS 4384	Internship in Art or Digital Media	
ARTS 4385	Art Seminar	
COMM 3321	Advertising	

COMM 3384	Documentary Film	
COMM 4310	Social Media Trends & Careers	
ENGL 3346	New Media Literature and Writing	
ENGL 4320 [WI (p. 396)]	Writing for Digital Mediums	
ENGL 4335	Film Studies	
Electives (See your Advisor)		12
Total Hours		**54**

Additional Information for All Art and Digital Media Majors

All Art/Digital Media majors must receive an overall grade of C or better in any Art or Digital Media course that applies to their degree.

Minor in Art

ARTS courses (at least 6 hours advanced) [1]		18

Minor in Art History

ARTS 1303	Art History I	3
ARTS 1304	Art History II	3
ARTS 3331	Art History of America	3
ARTS 3332 [WI (p. 396)]	Contemporary Movements in Art	3
ARTS 3333	Art History of the Non-Western World	3
ARTS 3334	History of Photography and Lens-Based Media	3
Total Hours		**18**

Minor in Digital Media Studies

ARTS 1316	Drawing I	3
ARTS 2348	Digital Art I	3
or ARTS 2356	Photography I	
Digital Art Electives in Multimedia Production or Game Design (6 credits must be advanced)		12
ARTS 2344	Game Design	
ARTS 2356	Photography I	
ARTS 3334	History of Photography and Lens-Based Media	
ARTS 3360	Graphic Design I	
ARTS 3361	Photography II	
ARTS 3362	Narrative Illustration I	
ARTS 3363	Tradigital Animation I	
ARTS 3364	3D Animation I	
ARTS 3365	Special Effects and Compositing I	
ARTS 3366	3D Video Game Environment I	
ARTS 3368	Narrative Film Arts I	
ARTS 3369	Experimental Photography	
ARTS 3383	3D Modeling	
ARTS 4360	Graphic Design II	
ARTS 4361	Photography III	
ARTS 4362	Narrative Illustration II	
ARTS 4363	Tradigital Animation II	
ARTS 4364	3D Animation II	
ARTS 4365	Special Effects and Compositing II	
ARTS 4366	3D Video Game Environment II	
ARTS 4368	Narrative Film Arts II	
ARTS 4370	Interaction Design	
ARTS 4372	Collaborative Production	
Total Hours		**18**

Minor in Film Production

FINA 1360	The Art of Film	3
ENGL 2340	Literature and Film	3
ARTS 2348	Digital Art I	3
COMM 3308	Digital Video Production	3
Choose two of the following:		6
COMM 3384	Documentary Film	
ENGL 4335	Film Studies	
ARTS 3368	Narrative Film Arts I	
ARTS 4368	Narrative Film Arts II	
ARTS 3361	Photography II	
ARTS 4361	Photography III	

ARTS 4367	3D Rendering and Lighting	
Total Hours		**18**

Professors

- Ehrhart, Megan
- Harding, Tim
- Hybinette, Knut

Instructor

- Mulvey, Michael
- Synatzske, Diana

Adjunct professors

- Bartholow, Haley
- Ingleright-Telgenhoff, Kelly
- Thomson, April Delaney

Courses

ARTS 1301. Art Appreciation. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A theory course designed to introduce the trends, techniques, styles, and major personalities of the visual arts.

ARTS 1303. Art History I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A chronological examination of painting, sculpture, architecture and related visual arts. Emphasis is placed on Western art, from prehistoric times to the end of the Gothic Period, but will include aspects of non-European art as well.

ARTS 1304. Art History II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A chronological examination of painting, sculpture, architecture and related visual arts. Emphasis is placed on Western art, from early Renaissance to the present, but will include aspects of non-European art as well.

ARTS 1311. Design I. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
Emphasis on two-dimensional design; includes the fundamentals of line, color, form, texture, shape, space, and arrangement. Medias such as drawing, painting, and digital design will be introduced.

ARTS 1312. Design II. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
Continuation of Design I with emphasis on three-dimension concepts. Tools for construction of 3D objects will be covered including digital fabrication, manual and electronic equipment, and 3D display techniques. Lab fee: $2.

ARTS 1316. Drawing I. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
A beginning course investigating a variety of media, techniques, and subjects, exploring perceptual and descriptive possibilities and consideration of drawing as a development process as well as an end in itself.

ARTS 1317. Drawing II. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
Expansion of Drawing I stressing expressive and conceptual drawing aspects, including the human figure within a spatial environment. Prerequisite: ARTS 1316.

ARTS 2313. Graphic Design Fundamentals. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
Introduces the field of Graphic Design, including basic terminology, visual communication skills, problem solving, and software tools.

ARTS 2316. Painting I. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
An introduction to painting media with an emphasis on color, composition, and self expression. Prerequisite: ARTS 1311, 1316, 1317, or approval of department head. Lab fee: $2.

ARTS 2326. Sculpture I. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
Sculpture is a introductory course designed to develop skills in building three-dimensional form by learning to work with a variety of tools and techniques. Special emphasis will be put on artistic and conceptual development. Prerequisite: ARTS 1312 or instructor permission.

ARTS 2344. Game Design. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
This introductory course, which explores both digital and non-digital games, aims to provide a critical vocabulary and historical context for analyzing games as an art form and mode of expression. Students will be encouraged to create meaningful play and interactive experiences in various forms of media. Lab fee: $10.

ARTS 2348. Digital Art I. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
Introduction to the concepts and techniques utilized in the creation of digital media design and art, including digital imaging, vector graphics, animation, and page layout for print and web. Lab fee: $2.

ARTS 2356. Photography I. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
This course covers basic to intermediate digital camera operation, production, software, and professional display techniques. The course will focus on developing technical proficiency, aesthetic skills, and will examine the medium's history and use in contemporary society. Lab fee: $10.

ARTS 3000. Portfolio Review. 0 Credit Hours (Lecture: 0 Hours, Lab: 0 Hours).

ARTS 3310. Introduction to Art Education. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to assist the preparing classroom teacher in developing a basic knowledge of art and art teaching at the grade school level so they can integrate meaningful visual art experiences into effective lesson plans and curriculum development. Prerequisite: Design 1 ARTS 1311.

ARTS 3311. Experimental Media Studio. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
A studio course in experimentation in two- and three-dimensional media and techniques. Prerequisite: ARTS 1312, 1317 Lab fee: $2.

ARTS 3321. Life Drawing. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
An advanced drawing course based on the observation of the human figure and interpretation through a variety of drawing techniques. Will be using live models in class. Prerequisite: ARTS 1316 Lab fee: $2.

ARTS 3331. Art History of America. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the art of America from pre-Columbian periods to the present.

ARTS 3332. Contemporary Movements in Art. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This course will survey the Visual Arts since the Second World War, primarily in the United States and Europe, but with some consideration of developments in the larger international arena. Examines the major movements of art including Post-Modernism, Conceptual Art, Digital Media, and other movements in relation to biographical and formal concerns, contemporary social and political conditions, and current art history debates.

ARTS 3333. Art History of the Non-Western World. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to introduce students to works of art in various media developed outside of the European tradition.

ARTS 3334. History of Photography and Lens-Based Media. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will survey the history of photography from its orgins to our present digital image culture. Important movements, photographers, theoretical and technical innovations will be examined as to how they define photography's broader role in the visual arts and in modern life. Prerequisite: n/a.

ARTS 3335. Game History and Culture. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
History and theory of traditional and video games with a focus on innovation and cultural impact. Students will have the opportunity to explore, play, and critically assess various facets of gaming, spanning from vintage traditional games to contemporary electronically mediated titles, and encompassing both solo and collaborative online gaming experiences. This course will discuss how gaming has had a defining influence in our culture, as a significant influence in society, laws, ethnic politics, business, artistic expression, and academia.

ARTS 3341. Painting II. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
A continued investigation of the technical qualities and expressive possibilities of painting media with emphasis on personal and stylistic development. Prerequisite: ARTS 2316 or approval of department head. Lab fee: $2.

ARTS 3351. Sculpture II. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
An advanced investigation of the cultural techniques, methods and media of Sculpture. Prerequisite: ARTS 1312, 1316 or approval of department head. Lab fee: $2.

ARTS 3352. Ceramics. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
This class introduces students to the ancient craft of working with clay. Students will experience hand-building techniques including pinch, coil, and slab. Wheel throwing is introduced with expectations for basic levels of achievement, including cylinder, bowl, and plate forms. Lab fee: $2.

ARTS 3360. Graphic Design I. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
This is an advanced studio course in contemporary graphic design. Advanced problem solving activities are structured to increase graphic design awareness and skills. Prerequisite: ARTS 2313 or 2348 or instructor permission.

ARTS 3361. Photography II. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
An intermediate level studio art course intended for students wishing to further their creative abilities using contemporary photographic techniques. Students will be further their technical skills and artistic vision through hands-on practice, lectures and demonstrations. Prerequisite: ARTS 2348 or instructor approval. Lab fee: $2.

ARTS 3362. Narrative Illustration I. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
This studio course is an introduction to the ever-changing and exciting world of contemporary narrative illustration in all its capacities. Through lectures, assignments and research, students become exposed to and experience the multiple facets of illustration, such as narrative/book illustration, editorial, advertising/marketing, sequential art (such as storyboarding for commercials, etc.), concept art, character development, etc. Prerequisite: ARTS 2348 or instructor approval. Lab fee: $2.

ARTS 3363. Tradigital Animation I. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
This class is an intermediate study of 2D animation with digital software. Techniques may include stop motion, cut out animation, and digital based drawing animation. Short films and scenes of feature animated and live action feature film will be used to illustrate the many concepts studied in this class. Lab fee: $2.

ARTS 3364. 3D Animation I. 3 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
Introduction to the art of 3D animation. Students learn how to plot, script, storyboard, present, and create animations using the principles of animation and basic techniques, including staging, timing, mechanics and kinetics. Also, this class will introduce students to the process of technical creation of animated imagery through various media including traditional hand-drawn methods up to 3D computer applications. Prerequisite: ARTS 3383, or instructor approval Lab fee: $2.

ARTS 3365. Special Effects and Compositing I. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
This intermediate studio course explores various aspects of special effects and compositing multimedia. Students will learn how to composite robust and immersive experiences by combining the elements of graphics, special effects and visual effects, animation, video, and audio to make effective multimedia works. Prerequisite: ARTS 2344 or instructor approval. Lab fee: $2.

ARTS 3366. 3D Video Game Environment I. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
This studio art course will cover 2D- and 3D-level setting design for video games and animation. Students will learn tools and concerns as well as develop the skills used to create 2D and 3D game level designs by using architectural theory, concepts of critical path and flow, balancing, lighting, game play experience, and various storytelling techniques for level design. Lab fee: $2.

ARTS 3368. Narrative Film Arts I. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
This intermediate studio course will cover production of short films using digital video and other experimental approaches. Emphasis on video concepts, techniques, composition, sequencing of ideas, and narrative structures. Lab fee: $2.

ARTS 3369. Experimental Photography. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
This studio course explores experimental photographic alternatives to the traditional methods of image making. Emphasis will be placed on using the camera, analog and historical techniques, and digital and emerging technology.

ARTS 3371. Printmaking. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
The basic printmaking processes including planographic, intaglio, stencil, and relief. May be taken for credit twice. Prerequisite: ARTS 1311, 1316, or approval of department head. Lab fee: $2.

ARTS 3372. Typography. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
Studio class for the study of the aesthetics, history, and practice of typography as it relates to visual communication and graphic design. This course will cover letterforms, terminology, and the history and use of typography in graphic design communications. Prerequisite: ARTS 2313.

ARTS 3373. Publication Design I. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
This studio course explores graphic design for publication. Assignments examine and develop creative solutions for graphic design and methods of publishing in print utilizing software applications in graphic design and contemporary publishing.

ARTS 3374. Digital Media Design I. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
A studio course that explores of a variety of design strategies that utilize digital technologies and screen based design strategies; emphasis on topics such as web based design, motion graphics, and electronic publishing. Prerequisite: ARTS 2313 or 2348.

ARTS 3377. Game Production I. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
This studio art course cover the collaborative process of designing and developing video games and interactive experiences. Students will take on roles of game producers, developers, programmers, and/or graphic artists as they learn to make games that reach a wider audience.

ARTS 3383. 3D Modeling. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
Introduction to the basic modeling tools and techniques within 3D computer applications. Students will create 3D models, simple animations, basic lighting/rendering, texturing while using the basic modeling tool sets; NURBS, Polygons and Subdivision Surfaces. Lab fee: $10.

ARTS 4086. Individual Problems in Art. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 1-6 Hours).
Art problems assigned in the area of the student's individual interest with emphasis on individual development. Prerequisite: ARTS 1317.

ARTS 4341. Painting III. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
An advanced investigation of the technical qualities and expressive possibilities of painting media with emphasis on research and presentation strategies. Lab fee: $2.

ARTS 4342. Painting IV. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
This advanced studio course is for further developing students' existing abilities and interests in paint media. Geared towards those pursuing professional practices in paint and Senior Capstone projects.

ARTS 4351. Sculpture III. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
This advanced studio course course focuses on specific topics and practices in contemporary sculptural installation works. Technical instruction may include sculptural and architectural model building, wood, metal, and plastic fabrication, lighting, sound works, video works, and cloth and alternative material fabrication methods. Lab fee: $2.

ARTS 4360. Graphic Design II. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
Advanced problems in both the print and web areas of graphic design, emphasizing a versatile, well-rounded and high-quality portfolio that will serve students as they pursue employment in the design field. Prerequisite: ARTS 2313 or 2348 or instructor permission.

ARTS 4361. Photography III. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
Advanced studio course in photography and digital image production with an emphasis on on conceptual development and professional display and publication in a variety of media, such as print, web, and mobile devices. Emphasis on visual communication strategies and creative thinking. Prerequisite: ARTS 3361. Lab fee: $2.

ARTS 4362. Narrative Illustration II. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
This course is an advanced studio course that explores digital illustration as a form of creative expression. Students will create a larger body of work in preparation for an artistic exhibition or a public presentation. Students will use their advanced skills in illustration to construct a professional portfolio and investigate possible artistic, commercial, and industrial opportunities. Students will be encouraged to develop a personal style in a variety of media. Prerequisite: ARTS 3362 Lab fee: $2.

ARTS 4363. Tradigital Animation II. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
This class is an advanced study of 2 dimensional animation with digital software. Techniques may include stop motion, cut out animation, and digital based drawing animation. Students will be encouraged to develop their own projects and short films from the concept stage to completion. Prerequisite: ARTS 3363 Lab fee: $2.

ARTS 4364. 3D Animation II. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
Advanced studio course in animation. Students will be expected how to plan, develop, and produce animations using the principles of animation and advanced techniques. Advanced topics such as character kinematics, gait movement, lighting and textures will be covered. Prerequisite: ARTS 3364. Lab fee: $2.

ARTS 4365. Special Effects and Compositing II. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
This advanced studio course explores various aspects of special effects and compositing multimedia. Students will furthur their skills in how to composite robust and immersive experiences by combining the elements of graphics, special effects and visual effects, animation, video, and audio to make an effective multimedia presentation. Prerequisite: ARTS 3365. Lab fee: $2.

ARTS 4366. 3D Video Game Environment II. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
This advanced studio art course will cover 2D- and 3D-level setting design for video games and animation. Students will create content from commercial game engines that show advanced levels of skill and expression of content. Prerequisite: ARTS 3366. Lab fee: $2.

ARTS 4367. 3D Rendering and Lighting. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
This advanced course is designed to cover concepts involved in the digital application of texture maps for virtual 3D models, 3D material qualities and characteristics, digital lighting concepts and design, and rendering methods. The importance of digital cinematography, scene arrangement, and compositing of 3D elements of color, camera and light are goals of aesthetic integration. Prerequisite: ARTS 2344. Lab fee: $10.

ARTS 4368. Narrative Film Arts II. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
This advanced studio course will cover production of short films using digital video and other experimental approaches. Emphasis on more independently directed short films. Prerequisite: ARTS 3368 or COMS 3308.

ARTS 4370. Interaction Design. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
This is an advanced studio art course that explores the use of programming skills in the creation of creative mobile web applications, as well as other kinds of digital environments. Technical skills that will combine the use of graphics, audio, and video along with sensible interface design will be covered. Resources will be provided for students with no programming background. Lab fee: $10.

ARTS 4371. Advanced Studio Production. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
A guided project-based course with emphasis on portfolio preparation for Art and Digital Media students. Lab fee: $2.

ARTS 4372. Collaborative Production. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
This course is a product driven course for the Art and Digital Media Studies Program. Students will form teams and collaborate with another using their talents and expertise to develop a digital media project as assigned by the instructor. Emphasis will be placed on collaboration both inside the classroom, and across disciplines.

ARTS 4373. Graphic Design Production. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
An advanced studio course covering professional standards in print, digital, and emerging media with an emphasis on production. Assignments and demonstrations will help students in their development of a professional portfolio of work. Prerequisite: ARTS 3360 or 3373 or 3374.

ARTS 4374. Digital Media Design II. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
A studio course that further explores of a variety of design strategies that utilize digital technologies and screen based design strategies; emphasis on production of screen-based products. Prerequisite: ARTS 3374.

ARTS 4375. Aerial Photography and Video. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
This advanced studio class will introduce will examine the use of small unmanned aerial systems, otherwise known as drones, as a photographic medium. This course will cover the techniques and best practices required to fly safely, successfully utilize and operate drones for commercial purposes and artistic practices. Prerequisite: ARTS 2356.

ARTS 4376. Publication Design II. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
This studio course further explores graphic design for publication. Advanced assignments examine and develop creative solutions for publishing graphic design projects. Prerequisite: ARTS 3373.

ARTS 4377. Game Production II. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
This advanced studio course emphasizes leadership and advanced collaboration in game development, preparing students to take on key leadership roles within interdisciplinary teams. Building on foundational skills, this course challenges students to guide the creation of a sophisticated, fully-functional game while managing the complexities of production and team dynamics. Prerequisite: ARTS 3377 Lab fee: $2.

ARTS 4380. Post Studio Practice. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
Students encounter art methods that are primarily executed outside of the studio setting. Students will become aware of the importance of place and how a work can be situated in response to it. This will include object-based participatory works, installation methods in response to specific locations, ephemeral works, social engagement and interactions with audiences, and other collaborative methods. Lab fee: $2.

ARTS 4384. Internship in Art or Digital Media. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Approved and supervised work experience in art or digital media related positions. May be repeated once for a total of 6 hours of academic credit. Prerequisites: Junior standing and 12 hours Art or approval of department head.

ARTS 4385. Art Seminar. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
Content varies according to the needs of students and opportunities available. When topic varies, course may be repeated for credit. Prerequisite: Junior classification or approval of department head.

ARTS 4390. Art/ Digital Media Portfolio Capstone I. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours). [WI (p. 396)]
In the first segment of this advanced level two-semester course students focus on developing a cohesive body of work in a medium and subject matter of their choosing. This course culminates with a public review of your portfolio in preparation of the following year's capstone exhibition. Prerequisite: Art majors seeking education certification must take this course before the semester in which they are student teaching. Lab fee: $2.

ARTS 4391. Art/ Digital Media Portfolio Capstone II. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
In the second half of this advanced level two-semester course, students focus on professional skills related to Art and Digital Media. Topics under discussion include: the transition from student to professional, job searches, freelancing, grant applications, graduate school options and trends in contemporary art and design.This course culminates with a senior thesis exhibition. Prerequisite: ARTS 4390.

College of Science & Mathematics

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The mission of the College of Science and Mathematics (COSM) at Tarleton State University is to provide innovative programs of excellence in education, research, and community & professional service at both the undergraduate and graduate levels. COSM prepares highly competitive graduates as judged by the highest academic standards in the fields of science, technology, and mathematics (STEM).

The College of Science and Mathematics has three primary roles:

- to provide the opportunity for students to pursue a degree or minor in a major field of science, technology, or mathematics
- to provide the courses in mathematics and natural & physical sciences that form an essential part of the general education requirement required of all University students
- to provide supporting courses for students in other academic areas, such as education, business, engineering, health sciences, and agriculture

Degree programs available in the College of Science and Mathematics feature considerable variety at both the undergraduate and graduate levels. The range includes a breadth of programs in mathematics, natural sciences, and physical sciences. The college also offers courses that provide the foundation required for health professional fields such as medicine, dentistry, optometry, veterinary, and pharmacy. The college offers master's degrees in three areas: biology, environmental science, and mathematics.

Departments and Programs

- Department of Biological Sciences (p. 322)
  - BS in Biology
  - BS in Biomedical Science
  - BS in Biotechnology
- Department of Chemistry, Geoscience, and Physics (p. 332)
  - BS in Chemistry
  - BS in Environmental Science
  - BS in Geoscience
  - BS in Physics
- Department of Mathematics (p. 350)
  - BS in Mathematics
  - BS in Statistics
- Department of Neuroscience (p. 358)
  - BS in Neuroscience

Department of Biological Sciences

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The Department of Biological Sciences offers three distinct four-year curricula that lead to the baccalaureate degree. These are the Bachelor of Science in Biology, the Bachelor of Science in Biomedical Science, and the Bachelor of Science in Biotechnology. In addition, Pre-Health professional programs are offered which include Pre-Medicine, Pre-Dentistry, Pre-Physical Therapy, Pre-Pharmacy, and Pre-Veterinary Medicine. The curricula are designed to maximize career opportunities and to prepare students for various graduate and professional school programs. The Department of Biological Sciences provides a broad range of courses and learning opportunities designed to prepare students for diverse careers. Particular attention is given to maintaining updated curricula to keep pace with the rapidly changing field of biology. Whenever possible we emphasize hands-on experience with the biological techniques and instrumentation used by biologists world-wide and encourage students to become involved in faculty initiated research experiences.

A Master of Science degree is also offered. For further information, see the graduate section (p. 116) of this catalog.

Bachelor of Science in Biology

General Education Requirements (p. 396) [1]		42
BIOL 1406	Biology for Science Majors	4
BIOL 1407	Biology for Science Majors II	4
BIOL 2300	Cell Biology	3
BIOL 3407	Microbiology	4
BIOL 3303	Genetics	3
BIOL 3103	Genetic Techniques	1
BIOL 3353	Ecology and Evolution	3
or BIOL 3363	Study Abroad: Ecology and Evolution	
BIOL 4398 [WI (p. 396)]	Current Topics in the Life Sciences	3
CHEM 1311 [shared]	College Chemistry I (Lecture) [2]	
CHEM 1111 [shared]	College Chemistry I (Laboratory) [2]	
CHEM 1312 [shared]	College Chemistry II (Lecture) [2]	
CHEM 1112 [shared]	College Chemistry II (Laboratory) [2]	
PHYS 1401	College Physics I	4
CHEM 2323	Organic Chemistry I	3
CHEM 2123	Organic Chemistry I Laboratory	1
PHYS 1402	College Physics II	4
ENGL 1301 [shared] [WI (p. 396)]	Composition I	
ENGL 1302 [shared] [WI (p. 396)]	Composition II	
ENGL 3309 [WI (p. 396)]	Professional Writing	3
Placement is required for MATH 2412		
MATH 2412 [shared]	Precalculus Math (shared)	
Total Hours		**82**

Aquatic Ecology

BIOL 3449	Animal Diversity	4
BIOL 4401	Ecology	4
BIOL 4462	Ichthyology	4
BIOL 4441	Freshwater Biology	4
BIOL 3340	Introduction to Marine Biology	3
BIOL 3430	Phycology	4
BIOL 4086	Biology Problems	1
EASC 3350	Environmental Science	3
GEOL 1403	Physical Geology	4
MATH 3450	Principles of Bio-Statistics	4
EASC 3340	Oceanography	3
Total Hours		**38**

Botany

MATH 3450	Principles of Bio-Statistics	4
BIOL 3415	Plant Taxonomy	4
BIOL 3420	Plant Pathology	4
BIOL 3449	Animal Diversity	4
BIOL 3430	Phycology	4
BIOL 4401	Ecology	4
BIOL 3436	Plant Physiology	4
BIOL 4086	Biology Problems (Herbarium Techniques Botanical Research Institute of Texas)	3
Biology Elective		4
WSES 4309 [WI (p. 396)]	Plant-Animal Interactions	3
Total Hours		**38**

Environmental

BIOL 3415	Plant Taxonomy	4
BIOL 3436	Plant Physiology	4
BIOL 3449	Animal Diversity	4
BIOL 4401	Ecology	4
BIOL 4441	Freshwater Biology	4
or BIOL 4462	Ichthyology	
BIOL 3340	Introduction to Marine Biology	3
EASC 3350	Environmental Science	3
GEOL 1403	Physical Geology	4
MATH 3450	Principles of Bio-Statistics	4
Electives		4
Total Hours		**38**

General Without Certification

Advanced BIOL Electives		18
MATH 3450	Principles of Bio-Statistics	4
Electives (6 Hours Advanced)		16
Total Hours		**38**

Molecular

BIOL 3413	Molecular Biology	4
BIOL 4374	Biochemistry I	3
BIOL 4375	Biochemistry II	3
BIOL 4378	Biochemistry Lab	3
CHEM 2325	Organic Chemistry II	3
CHEM 2125	Organic Chemistry II Laboratory	1
MATH 3450	Principles of Bio-Statistics	4
Select 7 hours from the following:		7
BIOL 3185	Immunology Lab Techniques	
BIOL 3385	Immunology	
BIOL 3395	Pathogenic Microbiology	
BTEC 3350	Computational Biology	
BTEC 3440	Biotechnology Research Techniques	
Electives (4 Hours Advanced)		10
Total Hours		**38**

Terrestrial Ecology

BIOL 3449	Animal Diversity	4
BIOL 4401	Ecology	4
BIOL 4320	Behavioral Ecology	3
BIOL 4420	Terrestrial Field Ecology	4
MATH 3450	Principles of Bio-Statistics	4
WSES 4309 [WI (p. 396)]	Plant-Animal Interactions	3
WSES 4311	Fire Ecology	3
One of the Following Courses:		4
BIOL 4445	Parasitology	
BIOL 3436	Plant Physiology	
One of the Following Courses:		4
BIOL 4430	Ornithology	
BIOL 4440	Herpetology	
BIOL 4451	Mammalogy	
Electives (4 Hours Advanced)		5
Total Hours		**38**

Wildlife

BIOL 3415	Plant Taxonomy	4
BIOL 3449	Animal Diversity	4
or BIOL 3436	Plant Physiology	
BIOL 4401	Ecology	4
BIOL 4420	Terrestrial Field Ecology	4
Select any 3 of the following courses:		12
BIOL 4430	Ornithology	
BIOL 4440	Herpetology	

BIOL 4451	Mammalogy	
BIOL 4462	Ichthyology	
MATH 3450	Principles of Bio-Statistics	4
WSES 2322	Principles of Wildlife Conservation and Management	3
Elective		3
Total Hours		**38**

Zoology

BIOL 3406	Comparative Vertebrate Anatomy	4
BIOL 3449	Animal Diversity	4
MATH 3450	Principles of Bio-Statistics	4
BIOL 4340	Developmental Biology	3
Select 23 hours from the following:		23
BIOL 4320	Behavioral Ecology	
BIOL 4430	Ornithology	
BIOL 4440	Herpetology	
BIOL 4445	Parasitology	
BIOL 4451	Mammalogy	
BIOL 4462	Ichthyology	
BIOL 4460	General Physiology	
Total Hours		**38**

Bachelor of Science in Biomedical Science

General Education Requirements (p. 396)		42
BIOL 1406	Biology for Science Majors	4
BIOL 1407	Biology for Science Majors II	4
BIOL 2300	Cell Biology	3
BIOL 3303	Genetics	3
BIOL 3103	Genetic Techniques	1
BIOL 3407	Microbiology	4
BIOL 3353	Ecology and Evolution	3
or BIOL 3363	Study Abroad: Ecology and Evolution	
BIOL 4460	General Physiology	4
BIOL 4374	Biochemistry I	3
BIOL 4398 [WI (p. 396)]	Current Topics in the Life Sciences	3
CHEM 1311 [shared]	College Chemistry I (Lecture) [2]	
CHEM 1111 [shared]	College Chemistry I (Laboratory) [2]	
BIOL 1185	Career Pathways in Biomedical Science	1
CHEM 1312 [shared]	College Chemistry II (Lecture) [2]	
CHEM 1112 [shared]	College Chemistry II (Laboratory) [2]	
PHYS 1401	College Physics I	4
or PHYS 2425	University Physics I	
CHEM 2123	Organic Chemistry I Laboratory	1
CHEM 2323	Organic Chemistry I	3
PHYS 1402	College Physics II	4
or PHYS 2426	University Physics II	
Placement is required for MATH 2412 or MATH 2413		
MATH 2412 [shared]	Precalculus Math	
or MATH 2413	Calculus I	
MATH 3450	Principles of Bio-Statistics	4
ENGL 1301 [shared] [WI (p. 396)]	Composition I	
ENGL 1302 [shared] [WI (p. 396)]	Composition II	
ENGL 3309 [WI (p. 396)]	Professional Writing	3
Total Hours		**94**

General Without Certification

BIOL 3406	Comparative Vertebrate Anatomy	4
or BIOL 4465	Human Anatomy	
Select 7-9 hours from the following:		7-9
BIOL 3185	Immunology Lab Techniques	
BIOL 3380	Introduction to Virology	
BIOL 3385	Immunology	
BIOL 3395	Pathogenic Microbiology	
BIOL 3413	Molecular Biology	
BIOL 4340	Developmental Biology	
BIOL 4350	Vaccines	

BIOL 4445	Parasitology	
BIOL 4375	Biochemistry II	
BIOL 4378	Biochemistry Lab	
BTEC 3440	Biotechnology Research Techniques	
BTEC 3350	Computational Biology	
Electives (7 Hours Advanced)		13-15
Total Hours		**26**

Pre-Medical/Pre-Dental

PSYC 2301 [shared]	General Psychology	
CHEM 2325	Organic Chemistry II	3
CHEM 2125	Organic Chemistry II Laboratory	1
BIOL 3385	Immunology	3
BIOL 4465	Human Anatomy	4
Select 3-4 hours from the following:		3-4
BIOL 3185	Immunology Lab Techniques	
BIOL 3380	Introduction to Virology	
BIOL 3395	Pathogenic Microbiology	
BIOL 3413	Molecular Biology	
BIOL 4340	Developmental Biology	
BIOL 4350	Vaccines	
BIOL 4445	Parasitology	
BIOL 4375	Biochemistry II	
BIOL 4378	Biochemistry Lab	
BTEC 3440	Biotechnology Research Techniques	
BTEC 3350	Computational Biology	
Electives (7 Hours Advanced)		11-12
Total Hours		**26**

Pre-Pharmacy

MATH 2413	Calculus I [1]	4
CHEM 2125	Organic Chemistry II Laboratory	1
CHEM 2325	Organic Chemistry II	3
BIOL 4465	Human Anatomy	4
Select 7-9 hours from the following:		7-9
BIOL 3185	Immunology Lab Techniques	
BIOL 3380	Introduction to Virology	
BIOL 3385	Immunology	
BIOL 3395	Pathogenic Microbiology	
BIOL 3413	Molecular Biology	
BIOL 4340	Developmental Biology	
BIOL 4350	Vaccines	
BIOL 4445	Parasitology	
BIOL 4375	Biochemistry II	
BIOL 4378	Biochemistry Lab	
BTEC 3440	Biotechnology Research Techniques	
BTEC 3350	Computational Biology	
Advanced Electives		5-7
Total Hours		**26**

Pre-Physical Therapy/Pre-Physician Assistant

PSYC 2301 [shared]	General Psychology	
KINE 3319	Medical Terminology	3
BIOL 4465	Human Anatomy	4
Select 8-9 hours from the following:		8-9
BIOL 3185	Immunology Lab Techniques	
BIOL 3380	Introduction to Virology	
BIOL 3385	Immunology	
BIOL 3395	Pathogenic Microbiology	
BIOL 3413	Molecular Biology	
BIOL 4340	Developmental Biology	
BIOL 4350	Vaccines	
BIOL 4445	Parasitology	
BIOL 4375	Biochemistry II	
BIOL 4378	Biochemistry Lab	

BTEC 3440	Biotechnology Research Techniques	
BTEC 3350	Computational Biology	
Electives (3 Hours Advanced) [2]		10-11
Total Hours		**26**

Pre-Veterinary

COMM 1315 [shared]	Public Speaking	
or COMM 2302	Business and Professional Speaking	
PSYC 2301 [shared]	General Psychology	
CHEM 2125	Organic Chemistry II Laboratory	1
CHEM 2325	Organic Chemistry II	3
BIOL 3406	Comparative Vertebrate Anatomy	4
ANSC 3308	Principles of Animal Nutrition	3
Select 8-9 hours from the following:		8-9
BIOL 3185	Immunology Lab Techniques	
BIOL 3380	Introduction to Virology	
BIOL 3385	Immunology	
BIOL 3395	Pathogenic Microbiology	
BIOL 3413	Molecular Biology	
BIOL 4340	Developmental Biology	
BIOL 4350	Vaccines	
BIOL 4375	Biochemistry II	
BIOL 4445	Parasitology	
BIOL 4378	Biochemistry Lab	
Electives (3 Hours Advanced)		6-7
Total Hours		**26**

Bachelor of Science in Biotechnology

General Education Requirements (p. 396)		42
ENGL 1301 [shared] [WI (p. 396)]	Composition I	
ENGL 1302 [shared] [WI (p. 396)]	Composition II	
GOVT 2305 [shared]	Federal Government (Federal Constitution and Topics)	
GOVT 2306 [shared]	Texas Government (Texas Constitution and Topics)	
BTEC 1185	Biotechnology Seminar	1
BIOL 1406 [shared]	Biology for Science Majors	
BIOL 1407 [shared]	Biology for Science Majors II	
Placement is required for Precalculus (MATH 2412)		
MATH 2412 [shared]	Precalculus Math	
BIOL 2300	Cell Biology	3
BIOL 3407	Microbiology	4
BIOL 3413	Molecular Biology	4
BTEC 3350	Computational Biology	3
BTEC 3440	Biotechnology Research Techniques	4
BTEC 4380 [WI (p. 396)]	Capstone in Biotechnology	3
CHEM 1311	College Chemistry I (Lecture)	3
CHEM 1111	College Chemistry I (Laboratory)	1
CHEM 1312	College Chemistry II (Lecture)	3
CHEM 1112	College Chemistry II (Laboratory)	1
CHEM 2323	Organic Chemistry I	3
CHEM 2123	Organic Chemistry I Laboratory	1
PHYS 1401	College Physics I	4
MATH 2413	Calculus I	4
MATH 3450	Principles of Bio-Statistics	4
ENGL 3309 [WI (p. 396)]	Professional Writing	3
Total Hours		**91**

Bioinformatics

BIOL 3303	Genetics	3
BIOL 3103	Genetic Techniques	1
BTEC 3360	Biotechnology Compliance	3
COSC 3360	Python Programming for Data Science	3
COSC 1436	Programming Fundamentals I	4
COSC 2441	Data Structures and Algorithms	4
COSC 3443	Computer Architecture	4
or COSC 3480	Operating Systems	
COSC 4301	Database Theory and Practice	3

COSC 4460	Machine Learning	4
Total Hours		**29**

Bioprocessing (Fort Worth Only)

BIOL 3303	Genetics	3
BIOL 3103	Genetic Techniques	1
BIOL 4374	Biochemistry I	3
BTEC 3360	Biotechnology Compliance	3
BTEC 4201	Principles of Bioprocessing Laboratory	2
BTEC 4301	Principles of Bioprocessing	3
BTEC 4319	Microbial Biotechnology	3
Electives		11
Total Hours		**29**

Molecular Biotechnology

BIOL 3303	Genetics	3
BIOL 3103	Genetic Techniques	1
BTEC 3360	Biotechnology Compliance	3
BIOL 4374	Biochemistry I	3
BIOL 4378	Biochemistry Lab	3
Choose 10 hours from the following course list:		10
BIOL 3353	Ecology and Evolution	
BIOL 3380	Introduction to Virology	
BIOL 3395	Pathogenic Microbiology	
BIOL 3402	Histology	
BIOL 3420	Plant Pathology	
BIOL 3436	Plant Physiology	
BIOL 3485	Immunology	
BIOL 4340	Developmental Biology	
BIOL 4350	Vaccines	
BIOL 4375	Biochemistry II	
BIOL 4445	Parasitology	
Electives		6
Total Hours		**29**

Plant and Animal Biotechnology

AGRI 3409	Genetics	4
or BIOL 3303 & BIOL 3103	Genetics and Genetic Techniques	
BIOL 4374	Biochemistry I	3
ANSC 4319 [WI (p. 396)]	Biotechnology in Agriculture	3
ANSC 3323	Ethical Issues in Agriculture and the Natural Resources	3
or WSES 3323	Ethical Issues in Agriculture and the Natural Resources	
Choose 12 hours from the following list of courses (9 hours Advanced)		12
AGRI 1307 & AGRI 1107	Agronomy and Agronomy Laboratory	
BIOL 3420	Plant Pathology	
BIOL 3436	Plant Physiology	
BIOL 4378	Biochemistry Lab	
ENTO 3312	General Entomology	
ENTO 3380	Ecological Pest Management	
HORT 2320	Fundamentals of Gardening and Landscaping	
HORT 3300	Plant Propagation	
WSES 3308	Analysis of Natural Resource Data	
WSES 3315	Sustainability	
ANSC 4084	Internship	
or WSES 4084	Internship in the Natural Resource Sciences	
or WSES 4088	Undergraduate Research in the Natural Resource Sciences	
Electives		4
Total Hours		**29**

Important Information Regarding Health Professions Programs

The Pre-Medical/Pre-Dental, Pre-Physical Therapy, Pre-Pharmacy, and Pre-Veterinary Support Areas in Biomedical Science are designed to meet or exceed the entrance requirements for medical, dental, physical therapy, pharmacy, and veterinary medicine programs in Texas. Other health professions programs including, but not limited to Physician Assistant, Optometry, Chiropractic, Occupational Therapy, Podiatry, Radiology Technician, and Dental Hygiene can vary considerably in terms of entrance requirements. Students interested in such programs are encouraged to earn a BS in Biomedical Science by following the

General Biomedical Science Support Area. By allowing greater flexibility in elective courses, the General Biomedical Science Support Area can be easily adjusted to meet the entrance requirements of these health professions programs.

A program in Pre-Veterinary Medicine is also offered through the Department of Animal Science and the Department of Wildlife and Natural Resources. Although the Pre-Veterinary programs offered through these departments and the Department of Biological Sciences each meet all the requirements for admission to the Texas colleges of veterinary medicine, a student is typically best suited for one program or the other. It is important that a student discuss with an advisor which program is best suited to his or her interests, skills, and goals.

It is important to know that health profession programs may change entrance requirements without notice. Therefore, it is the responsibility of the student to check these requirements and work closely with an advisor to ensure that all requirements are met. If all of the entrance requirements for a professional program have been met, it is sometimes possible for a student to matriculate to the professional program prior to completing a degree at Tarleton. In this case, a student might meet the requirements of a Bachelor of Science degree at Tarleton by:

1. fulfilling the “Degree Requirements” as stated in the Academic Information section of the catalog and
2. transferring the necessary hours from an approved professional school to Tarleton for a minimum total of 120 hours.

Professors

- Herrmann, Kristin Dr.
- Johnson, Kevin Dr.
- Speshock, Janice Dr.
- Sanderford, Max Dr.
- Pfau, Russell Dr.

Associate professors

- Chraibi, Victoria Dr.
- Rathburn, Harold Dr.
- Meik, Jesse Dr.
- Edwards, Dustin Dr.

Assistant professors

- Brock, Chad Dr.
- Brown, Amanda Dr.

Instructor

- James, Corban Mr.
- Johnson, Terry Mr.
- Price-Sweat, Callie Ms.
- Scoggins, Brian Mr.

Visiting Instructors

- Strongin, Kyle Dr.

Biology Courses

BIOL 1106. Biology for Science Majors I. 1 Credit Hour (Lecture: 0 Hours, Lab: 1 Hour).

BIOL 1107. Biology for Science Majors II. 1 Credit Hour (Lecture: 0 Hours, Lab: 1 Hour).

BIOL 1108. Biology for Non-Science Majors I. 1 Credit Hour (Lecture: 0 Hours, Lab: 1 Hour).

BIOL 1109. Biology for Non-Science Majors II. 1 Credit Hour (Lecture: 0 Hours, Lab: 1 Hour).

BIOL 1111. General Botany. 1 Credit Hour (Lecture: 0 Hours, Lab: 1 Hour).

BIOL 1113. General Zoology. 1 Credit Hour (Lecture: 0 Hours, Lab: 1 Hour).

BIOL 1185. Career Pathways in Biomedical Science. 1 Credit Hour (Lecture: 1 Hour, Lab: 0 Hours).
Exploration of opportunities in the health professions, biomedical research, biomedical industry, and related fields. Course is open to all majors interested in life science careers related to health and disease.

BIOL 1305. Biology for the Informed Citizen. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The goal of this course is to introduce students to basic concepts in biology so that they can apply their knowledge in their everyday lives as informed consumers and users of scientific information. The format of the course is inquiry based within the context of important cultural and social issues. This course will give students a greater appreciation for the sciences and enhance the student’s ability to make informed and ethical decisions about biological issues that affect the global community.

BIOL 1306. Biology for Science Majors I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

BIOL 1307. Biology for Science Majors II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

BIOL 1308. Biology for Non-Science Majors I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

BIOL 1309. Biology for Non-Science Majors II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

BIOL 1311. General Botany. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

BIOL 1313. General Zoology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

BIOL 1406. Biology for Science Majors. 4 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
Fundamental principles of living organisms will be studied, including physical and chemical properties of life, organization, function, evolutionary adaptation, and classification. Concepts of cytology, reproduction, genetics, and scientific reasoning are included. Laboratory activities will reinforce the fundamental principles of living organisms, including physical and chemical properties of life, organization, function, evolutionary adaptation, and classification. Study and examination of the concepts of cytology, reproduction, genetics, and scientific reasoning are included. Lab fee: $2.

BIOL 1407. Biology for Science Majors II. 4 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
The diversity and classification of life will be studied, including animals, plants, protists, fungi, and prokaryotes. Special emphasis will be given to anatomy, physiology, ecology, and evolution of plants and animals. Laboratory activities will reinforce study of the diversity and classification of life, including animals, plants, protists, fungi, and prokaryotes. Special emphasis will be given to anatomy, physiology, ecology, and evolution of plants and animals. Lab fee: $2.

BIOL 1408. Biology for Non-Science Majors I. 4 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).

BIOL 1409. Biology for Non-Science Majors II. 4 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).

BIOL 1411. General Botany. 4 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).

BIOL 1413. General Zoology. 4 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).

BIOL 2020. Biology Connect 2020. 0 Credit Hours (Lecture: 0 Hours, Lab: 0 Hours).
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BIOL 2101. Anatomy & Physiology I. 1 Credit Hour (Lecture: 0 Hours, Lab: 1 Hour).

BIOL 2102. Anatomy & Physiology II. 1 Credit Hour (Lecture: 0 Hours, Lab: 1 Hour).

BIOL 2106. Environmental Biology. 1 Credit Hour (Lecture: 0 Hours, Lab: 1 Hour).

BIOL 2120. Microbiology for Non-Science Majors. 1 Credit Hour (Lecture: 0 Hours, Lab: 1 Hour).

BIOL 2121. Microbiology for Non-Science Majors. 1 Credit Hour (Lecture: 0 Hours, Lab: 1 Hour).

BIOL 2300. Cell Biology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introduction to the study of cells, including structure and function of cellular components, bioenergetics, cellular transport and communication, and the cell cycle. Prerequisite: BIOL 1406.

BIOL 2301. Anatomy & Physiology I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

BIOL 2302. Anatomy & Physiology II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

BIOL 2306. Environmental Biology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

BIOL 2310. Essential Elements of Biology. 3 Credit Hours (Lecture: 2 Hours, Lab: 3 Hours).
The study of morphology, anatomy, growth, life cycles, ecology, behavior, classification, and uses of organisms. Human systems and tissues and mechanisms of heredity and metabolism will be introduced. The laboratory will give experience in the use of the microscope, dissecting procedures, and problem solving. Enrollment in this course is restricted to Elementary Teacher Education (ETED) or Interdisciplinary Studies Majors. Prerequisite: 3 hours of CHEM, PHYS, or GEOL Lab fee: $2.

BIOL 2320. Microbiology for Non-Science Majors. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

BIOL 2321. Microbiology for Non-Science Majors. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

BIOL 2401. Anatomy and Physiology I. 4 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
Basic physiological principles and their applications in the study of the skeletal, muscular, and nervous systems are emphasized. Substantial microscopic observation required. Lab fee: $2.

BIOL 2402. Anatomy & Physiology II. 4 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
Integrated study of human anatomy and physiology. Includes study of the structure and function of the human body including the following systems: endocrine, cardiovascular, immune, lymphatic, respiratory, digestive (including nutrition), urinary (including fluid and electrolyte balance), and reproductive (including human development and genetics). Emphasis is on interrelationships among systems and regulation of physiological functions involved in maintaining homeostasis. The lab provides a hands-on learning experience for exploration of human system components and basic physiology. Lab fee: $2.

BIOL 2404. Anatomy & Physiology. 4 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).

BIOL 2406. Environmental Biology. 4 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).

BIOL 2416. Genetics. 4 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).

BIOL 2420. Microbiology for Non-Science Majors. 4 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
A survey of the microorganisms, their environments, and their interactions with multicellular organisms, particularly man. The course concentrates on the microorganisms which are pathogenic to man, human diseases, treatments for the diseases, and their prevention. Microorganisms need time to grow and therefore there will be several laboratory assignments throughout the course of the semester where students will be required to return the next day for about 15-45 minutes for culture analysis. Course is appropriate for pre-nursing majors. Prerequisite: 8 hours of BIOL or CHEM Lab fee: $2.

BIOL 3103. Genetic Techniques. 1 Credit Hour (Lecture: 0 Hours, Lab: 3 Hours).
Application of modern genetic techniques to generate, analyze, and interpret data. Emphasis will be placed on the development of practical laboratory skills. Prerequisite: BIOL 3303 or concurrent enrollment. Lab fee: $2.

BIOL 3185. Immunology Lab Techniques. 1 Credit Hour (Lecture: 0 Hours, Lab: 3 Hours).
The use of current molecular techniques in cell and protein biology to assess how the immune system responds to various stimuli. Credit will not be awarded for both BIOL 3185 and BIOL 5188. Prerequisite: BIOL 3385 or concurrent enrollment Lab Fee: $2.

BIOL 3303. Genetics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introduction to the study of genetics including the nature of genetic material, mechanisms of gene expression and inheritance, population genetics and evolution, and application of modern DNA technology. Prerequisites: 8 hours of BIOL with a grade of C or higher and CHEM 1311 and 1111 or higher.

BIOL 3340. Introduction to Marine Biology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
General considerations of the marine environment including habitats, biota, zoogeography, and humans' impact. Prerequisites: BIOL 1406, 1407.

BIOL 3353. Ecology and Evolution. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The objective of this course is to convey a basic understanding of how life evolves, how organisms interact with their environments, and how evolutionary and ecological principles can be applied to a wide range of questions. Prerequisites: BIOL 1406, 1407 and (BIOL 3303 or AGRI 3409).

BIOL 3363. Study Abroad: Ecology and Evolution. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is intended to convey a basic understanding of how life evolves, how organisms interact with their environments, and how evolutionary and ecological principles can be applied to a wide range of questions. Emphasis will be placed on the writing process. This course will be an Applied Learning Experience. Prerequisites: BIOL 1406, BIOL 1407, and (BIOL 3303 or AGRI 3409).

BIOL 3380. Introduction to Virology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course covers the basic principles in the study of viruses. It will provide a foundation to understanding virus architecture and nomenclature, virus replication cycles, mechanisms of viral entry and spread of infection, host responses to viral infections, laboratory research and diagnostics of viral diseases, and epidemiology of viral infections. Prerequisite: BIOL 3407.

BIOL 3385. Immunology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the cells, tissues, and proteins that comprise the mammalian immune system focusing on how they interact to prevent, and also contribute to disease. Credit will not be awarded for both BIOL 3385 and BIOL 5385. Prerequisite: BIOL 2420 or 3407.

BIOL 3395. Pathogenic Microbiology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the disease-producing capacities of various microorganisms with emphasis on the diagnostic procedure of isolation and identification. Prerequisite: BIOL 3407 with minimum grade of "C" or approval by the department head.

BIOL 3402. Histology. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
Introduction to cellular ultrastructure. Study of vertebrate tissues and their arrangement in various organs. Prerequisite: 8 hours of BIOL Lab fee: $2.

BIOL 3406. Comparative Vertebrate Anatomy. 4 Credit Hours (Lecture: 3 Hours, Lab: 4 Hours).
The morphology, physiology, and phylogeny of the organ systems of vertebrates. Laboratory study of representative vertebrates. Prerequisite: 8 hours of biology. Lab fee: $2.

BIOL 3407. Microbiology. 4 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
Study of microorganisms; characteristics, physiology, genetics, and their interrelations with humans. Substantial microscopic observation required. Microorganisms need time to grow and therefore there will be several laboratory assignments throughout the course of the semester where students will be required to return the next day for about 15-45 minutes for culture analysis. Prerequisites: 2 semesters of BIOL and 1 semester of CHEM, or 1 semester of BIOL and 2 semesters of CHEM, or approval by the department head. Lab fee: $2.

BIOL 3413. Molecular Biology. 4 Credit Hours (Lecture: 3 Hours, Lab: 4 Hours).
Fundamentals of gene expression, gene regulation, DNA metabolism and nucleic acid structure, recombinant DNA techniques and protein structure. Prerequisites: BIOL 3303 and 3103, and either CHEM 2423 or both CHEM 2323 and CHEM 2123.

BIOL 3415. Plant Taxonomy. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
Principles of plant taxonomy. Field and laboratory studies of common Texas wild flowers and trees with emphasis on identification, collection, and preparation of herbarium specimens. Prerequisite: 8 hours of BIOL with a grade of C or better, junior classification, or department head approval. Lab fee: $2.

BIOL 3420. Plant Pathology. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
Study of the various types of plant diseases and specific examples of each type. Emphasis upon identification, host-parasite interactions, pathogen dissemination, and control methods. Prerequisite: BIOL 1406, 3407 or approval by department head. Lab fee: $2.

BIOL 3430. Phycology. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
Hands-on training in the taxonomy, ecology, and ecophysiology of algae. Discussion of current uses of algae for water quality, biofuel, food production, forensic science, and nanotechnology. Prerequisites: BIOL 1406 and BIOL 1407 Lab fee: $2.

BIOL 3436. Plant Physiology. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
A study of physiology of green plants with emphasis on nitrogen metabolism, respiration, mineral nutrition, photosynthesis, and growth. Prerequisite: BIOL 1406 or BIOL 1407 Lab fee: $2.

BIOL 3449. Animal Diversity. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
The study of the morphology, taxonomy, biology, and phylogeny of the invertebrate animals. In lecture, students concentrate on basic concepts of structures, function and evolutionary development of major invertebrate groups. In lab, students are exposed to a large collection of invertebrates, learning about systematics, ecology, structure and phylogenetic relationships. Prerequisite: 12 hours of BIOL or approval by the department head. Lab fee: $2.

BIOL 3485. Immunology. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
Emphasis on the basic concepts of humoral and cell-mediated immunity. Laboratory: current techniques in experimental immunology and serology. Prerequisites: BIOL 2300, BIOL 3407, CHEM 1411, and CHEM 1412 Lab fee: $2.

BIOL 4010. Independent Research. 0 Credit Hours (Lecture: 0 Hours, Lab: 0 Hours).

BIOL 4086. Biology Problems. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 1-6 Hours).
A course open by invitation to capable juniors and seniors wishing to pursue a biological problem. Students are permitted and encouraged to work independently under the guidance of an instructor. May be repeated for credit, subject to the approval by the department head. Prerequisite: 14 hours of BIOL Lab fee: $2.

BIOL 4090. Special Topics. 1-3 Credit Hours (Lecture: 0-3 Hours, Lab: 0-9 Hours).
Deals with selected topics in biology. May be repeated for credit when topics vary. Prerequisite: approval of department head.

BIOL 4185. Seminar. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 0 Hours).
Survey of biological literature, biological instrumentation, history of biology, and current trends in biological sciences. Grading in this course is satisfactory/unsatisfactory. Prerequisite: 12 hours BIOL or approval of department head.

BIOL 4320. Behavioral Ecology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The aim of this course is to understand variation in behavior among species and among individuals within a species. The course will focus on how behavior affects an animal's ability to survive and reproduce. Prerequisites: 12 hours of biology or approval by department head.

BIOL 4325. Conservation Biology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Principles of conservation biology and the major issues that define the discipline. Study of value, threats to, and conservation of biodiversity. Conservation issues at the population and species levels, policy, and practical applications of the science will be included. Prerequisite: Course in Ecology, or department head approval.

BIOL 4340. Developmental Biology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduction to basic principles of developmental biology. The course will include sections on classical embryology, the molecular basis of development, and evolution of development. In addition, students will read/discuss relevant articles from the primary literature. Prerequisite: BIOL 3303 or BIOL 3403.

BIOL 4350. Vaccines. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course will cover the basic principles in the study of vaccines by providing a foundation to the understanding of the immune response to vaccinations, development of vaccinations, and the significance of individual human and animal vaccines. Prerequisite: BIOL 3407.

BIOL 4370. Organisms and Ecosystems of Texas. 3 Credit Hours (Lecture: 2 Hours, Lab: 4 Hours).
A comparisons of the organisms and ecosystems of Texas. The comparative study of the morphology, anatomy, metabolism, reproduction, and the phylogenetic and ecological relationships of organisms in Texas. Prerequisites: BIOL 1406, BIOL 1407, and CHEM 1311 and 1111, or approval of department head. Lab fee: $2.

BIOL 4374. Biochemistry I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introduction to the basic principles of biological chemistry and to fundamental processes of plants, animals and microorganisms. Students cannot receive credit for both BIOL 5374 and BIOL/CHEM 4374. Prerequisite: 8 hours of BIOL, and either (CHEM 2423 or both CHEM 2323 and 2123 with "C" or better).

BIOL 4375. Biochemistry II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A detailed survey of intermediary metabolism. The metabolism of carbohydrates, lipids, proteins and nucleic acids, and the regulation of metabolism are emphasized. Credit for both BIOL 4375 and CHEM 4375 will not be awarded. Prerequisite: BIOL/CHEM 4374, or approval of department head.

BIOL 4378. Biochemistry Lab. 3 Credit Hours (Lecture: 1 Hour, Lab: 5 Hours).
Principles and applications of basic methodology for the isolation, purification, characterization, and quantitative determination of biologically important compounds. Credit for both BIOL 4378 and CHEM 4378 will not be awarded. Prerequisite: BIOL 4374 or CHEM 4374 Lab fee: $2.

BIOL 4398. Current Topics in the Life Sciences. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
Students will apply knowledge and skills learned in previous courses to address biological issues through writing, oral presentations, and other assessments. All majors must complete this course to graduate with a BS in Biology or BS in Biomedical Science. Prerequisites: Major in Biology or Biomedical Science and at least 80 hours of coursework completed, including BIOL 1406,BIOL 1407, BIOL 2300, BIOL 3103 and BIOL 3303, BIOL 3353, and BIOL 3407, or Department Head Approval.

BIOL 4401. Ecology. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
The scientific study of the biotic and abiotic interactions that determine the distribution and abundance of organisms. Prerequisites: BIOL 1406, BIOL 1407, and 4 hours of CHEM; or ENVE 2310 and 4 hours CHEM (for Environmental Engineering majors only) Lab fee: $2.

BIOL 4420. Terrestrial Field Ecology. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
A study of the structure and functioning of terrestrial communities with an emphasis on plants. Laboratories will be conducted over three weekends. Prerequisite: Plant Taxonomy (BIOL 3415) or department head approval Lab fee: $2.

BIOL 4430. Ornithology. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
A study of the basic biology of birds, including origins, systematics, ecology, biogeography, physiology, anatomy, and reproductive biology. Laboratory emphasizes identification of regional avifauna and includes multiple field trips. Prerequisites: BIOL 1406 and BIOL 1407. Lab fee: $2.

BIOL 4440. Herpetology. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
A survey of the biology of amphibians and reptiles, with emphasis on phylogenetics, ecology, physiology, morphology, zoogeography, conservation, and taxonomy. Laboratory and field work will provide students with practical experience in collecting, identifying, and preparing specimens of regional species, as well as observing populations in natural settings. Prerequisites: BIOL 1406 and BIOL 1407. Lab fee: $2.

BIOL 4441. Freshwater Biology. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
The study of aquatic communities and the biogeochemical factors affecting the productivity of ponds, reservoirs, and streams (Limnology). Labs focus on field collections and student-driven experimental research. Prerequisites: 8 hours of CHEM and 12 hours of BIOL, including BIOL 1406 and 1407; or 8 hours of CHEM and ENVE 2310 (for Environmental Engineering majors only). Lab fee: $2.

BIOL 4445. Parasitology. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
A survey of the various invertebrate parasites of medical importance with particular reference to epidemiology and the host-parasite relationship. Prerequisite: 12 hours of BIOL or approval by the department head. Lab fee: $2.

BIOL 4451. Mammalogy. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
A study of the evolution, anatomy, behavior, ecology, systematics, and basic biology of mammals. Laboratory work includes identification of regional mammals as well as techniques for the collection and preparation of mammalian specimens. Prerequisites: BIOL 1406 and BIOL 1407. Lab fee: $2.

BIOL 4460. General Physiology. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
An advanced course in the fundamentals of general physiology emphasizing physiologic mechanisms from a basic molecular/cellular level up to the level of organ systems, which include the nervous, endocrine, muscular, cardiovascular, respiratory, digestive and urinary systems. The basic physiologic mechanisms are presented in the context of human physiology. Laboratory exercises may involve the use of electronic instrumentation to measure physiologic responses in animals or non-invasively in human volunteers. Prerequisites: 12 hours of BIOL and CHEM 2423 Lab fee: $2.

BIOL 4462. Ichthyology. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
A study of the anatomy, behavior, ecology, evolution, taxonomy, and zoogeography of fishes. Field and laboratory work provide students with practical experience in collecting, identifying, and studying fishes. Emphasis will be placed on local fauna. Prerequisites: BIOL 1406 and BIOL 1407. Lab fee: $2.

BIOL 4465. Human Anatomy. 4 Credit Hours (Lecture: 3 Hours, Lab: 4 Hours).
Emphasis on structure and function of organs and organ systems of the human body from the micro-anatomical to the macro-anatomical levels. Credit will not be granted for both BIOL 4465 and BIOL 5465. Prerequisite: BIOL 1406, BIOL 1407, CHEM 1311, and CHEM 1312 Lab Fee: $2.

Biotechnology Courses

BTEC 1185. Biotechnology Seminar. 1 Credit Hour (Lecture: 1 Hour, Lab: 0 Hours).
Exploration of opportunities in the biotechnology research, biotechnology industry, and related fields. Students will have the opportunity to learn the academic and co-curricular expectations necessary to be successful applicants to professional school, graduate school or entry-level industry positions.

BTEC 3350. Computational Biology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduction to computational tools and programming languages for biotechnology. Prerequisites: BIOL 2300 and MATH 3450.

BTEC 3360. Biotechnology Compliance. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Role of regulatory agencies during the discovery, development, and manufacture of biotechnological products. Prerequisites: GOVT 2305 and GOVT 2306 (or Government Core Complete [core 070]) and BTEC 3340.

BTEC 3440. Biotechnology Research Techniques. 4 Credit Hours (Lecture: 3 Hours, Lab: 4 Hours).
Students will learn tissue culture techniques, how to introduce foreign DNA into cells, how to select for desired cells, and biochemical assays. Prerequisite: BIOL 2300, BIOL 3103 Lab Fee: $2.

BTEC 4086. Biotechnology Problems. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 1-6 Hours).
A course open by invitation to capable students wishing to pursue a biotechnology problem. Students are permitted and encouraged to work independently under the guidance of an instructor. May be repeated for credit, subject to the approval by the department head.

BTEC 4090. Special Topics. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 3-9 Hours).
Focuses on selected topics in Biotechnology. May be repeated for credit when topics vary.

BTEC 4201. Principles of Bioprocessing Laboratory. 2 Credit Hours (Lecture: 0 Hours, Lab: 6 Hours).
An introduction to bioprocessing operations producing biomolecules from living cells. Students practice sterile inoculation, small-scale bioreactor operation, product recovery, purification, and real-time monitoring, documenting processes to entry-level Good Manufacturing Practice (GMP) standards. Prerequisite: BTEC 4301 or concurrent enrollment.

BTEC 4301. Principles of Bioprocessing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course introduces engineering principles for producing biomolecules from bench to commercial scale. It also covers bioreactor design, cell culture kinetics, downstream purification, scale-up challenges, process economics, and Good Manufacturing Practice (GMP) regulations. Prerequisite: BIOL 3407.

BTEC 4319. Microbial Biotechnology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course explores how microbial systems are engineered to generate bioproducts such as pharmaceuticals and biofuels. Lectures integrate genome-editing tools, metabolic-pathway design, synthetic biology, biosafety, and regulatory considerations. Prerequisite: BIOL 3407 and BIOL 3303.

BTEC 4380. Capstone in Biotechnology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
Students will apply knowledge and skills learned in previous courses to address biotechnology issues through writing, oral presentations, and other assessments. All majors must complete this course to graduate with a BS in Biotechnology. Prerequisites: Major in Biology, Biotechnology, or Biomedical Science and at least 80 hours of coursework completed, including BIOL 1406,BIOL 1407, BIOL 2300, BIOL 3103 and BIOL 3303, BTEC 3340, BTEC 3350 and BIOL 3407, or Department Head Approval.

Department of Chemistry, Geosciences, and Physics

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The Department of Chemistry, Geosciences, and Physics provides rigorous, high-caliber programs with experts dedicated to student mastery. Located only an hour southwest of Fort Worth in the heart of Stephenville, the campus is nestled in the Hill Country of Texas, with access to nearby facilities and research opportunities in DFW, Austin, Waco, Abilene, and College Station.

Learning reaches beyond the classroom at Tarleton, and we are proud of our traditions of friendliness and of treating students with respect and individual attention. We take pride in our small advanced classes which provide access to our faculty in a one-on-one environment. Tarleton's faculty members are dedicated to your needs and they make every effort to be responsive and progressive.

These traits are also present in Tarleton's Department of Chemistry, Geosciences and Physics, which offers Bachelor of Science degrees in Physics (https://www.tarleton.edu/degrees/bachelors/bs-physics/), Chemistry (https://www.tarleton.edu/degrees/bachelors/bs-chemistry/), Environmental Science (https://www.tarleton.edu/degrees/bachelors/environmental-science/), or Geosciences (https://www.tarleton.edu/degrees/bachelors/bs-geoscience/), as well as a Master of Science degree in Environmental Science (https://www.tarleton.edu/degrees/masters/ms-environmental-science/). The Department is home to the Division of Chemistry and Physics (p. 343), which houses the Physics (https://www.tarleton.edu/degrees/bachelors/bs-physics/) and Chemistry (https://www.tarleton.edu/degrees/bachelors/bs-chemistry/) degree programs and faculty.

Tarleton's Chemistry, Geosciences, and Physics Department emphasizes the personal bond between student and faculty mentor. Through personalized advising, we encourage you to identify your preferences in choosing a degree program that will prepare you professionally and challenge you academically.

Bachelor of Science Degree in Environmental Science

Our environmental science bachelor's degree takes a multidisciplinary, integrated approach to understanding biological, chemical, geological, and human factors that affect environmental quality. Through broad coursework and hands-on learning experiences, you can explore and discover your environmental interests while preparing for a wide variety of jobs in environmental sciences. You can also specialize in an area of environmental sciences by choosing one of three concentrations:

- Science
- Geospatial Information Science (GIS)
- Policy

Our curriculum offers diverse opportunities to gain a practical understanding of land and water resources, human impacts on the environment, and environmental law and policies. As an environmental science major at Tarleton, you will gain marketable skills in effective environmental management to protect the health and future of our planet and our people.

- Science: Designed for students interested in pursuing careers with environmental consulting companies or conducting environmental assessments of land and water resources. Excellent for students interested in pursuing a graduate degree in environmental science or going directly into the field.

- Geospatial Information Science: For students interested in land-use planning or in analyzing environmental interactions. Excellent program for students interested in environmental education or work with environmental monitoring organizations. Includes an option for a GIS certification while exploring ecological, social, and economic interactions across the landscape.

- Environmental Policy: For students interested in environmental law, in investigating the impacts of government policies on environmental conditions, and in assessing impacts of resource use and pollution on human communities. Also for business professionals involved in developing or implementing environmentally sound business practices. Includes an in-depth exploration of environmental policies, environmental law, environmental sociology, and environmental economics.

General Education Requirements (p. 396)		42
BIOL 1406 [shared]	Biology for Science Majors	
BIOL 1407	Biology for Science Majors II	4
CHEM 1311 [shared]	College Chemistry I (Lecture)	
CHEM 1111 [shared]	College Chemistry I (Laboratory)	
CHEM 1312	College Chemistry II (Lecture)	3
CHEM 1112	College Chemistry II (Laboratory)	1
EASC 3340	Oceanography	3
EASC 4313 [WI (p. 396)]	Environmental Techniques	3
ENGT 4360	Hazardous Waste Management	3
ENVS 1302 [shared]	Science, Technology, and the Environment	
ENVS 1308	Environmental Science II	3
ENVS 2451	Introduction to Geographic Information Systems	4
ENVS 3307	Systems Thinking	3
ENVS 3310	Environmental Policy	3
ENVS 3315	Sustainability	3
ENVS 4301	Environmental Law	3
ENVS 4350	Energy and the Environment	3
ENVS 4380	Environmental Science Capstone	3
GEOL 1403	Physical Geology	4
GEOL 1307	Introduction to Environmental Science	3
Placement is required for MATH 2412		
MATH 2412 [shared]	Precalculus Math	
MATH 3450	Principles of Bio-Statistics	4
PHIL 2303	Introduction to Logic	3

PHIL 4305	Environmental Ethics	3
Total Hours		**101**

Environmental Policy

GEOG 2301	The Geography of Texas	3
EASC 3360	Remote Sensing	3
SOCI 3312	Environmental Sociology	3
ENVS 4310	Qualitative Research Methods	3
ENVS 4312	International Environmental Issues	3
Advanced Elective in BIOL, ENVS, EASC, CHEM, or GEOL 3XXX or 4XXX [1]		4
Total Hours		**19**

Geospatial Information Science

GEOG 2301	The Geography of Texas	3
GEOG 3450	Intermediate Geographic Information Systems	4
GEOG 4450	Advanced Geographic Information Systems	4
EASC 3360	Remote Sensing	3
GEOG 4451	Applied Remote Sensing	4
Advanced Elective in BIOL, ENVS, EASC, CHEM, or GEOL 3XXX or 4XXX [1]		1
Total Hours		**19**

Science

BIOL 4401	Ecology	4
GEOL 3310	Geomorphology	3
SOIL 3301	Soil Science	3
SOIL 3101	Soil Science Laboratory	1
CHEM 4477	Environmental Chemistry	4
Advanced Elective in BIOL, ENVS, EASC, CHEM, or GEOL 3XXX or 4XXX [1]		4
Total Hours		**19**

Bachelor of Science Degree in Geoscience

This degree emphasizes the study of the physical, chemical, and biological processes of the Earth, from its deep interior to the surface. Geoscience majors also study topics such as:

- Rivers/beaches
- Volcanoes
- Glaciers
- Earthquakes/plate tectonics
- Global Climate Change
- Soils/sediments

Each of these paths is tailored to help the student reach their desired career goals, and our geoscience faculty advisers will assist the student in making the most of their degree. Each of these concentrations is described below:

- Geology: (https://www.tarleton.edu/degrees/bachelors/bs-geoscience/documents/geoscience-geology.pdf) Majors concentrate on the standard geological sciences, and most graduate and go to work in the oil field. Some will go on the graduate work in sedimentology, stratigraphy, paleontology, environmental science and seismic work, to name a few. Those who get their master's will often work for major oil companies but could go on to teach and work other field-oriented jobs, depending on their concentration.
- Environmental Science: (https://www.tarleton.edu/degrees/bachelors/bs-geoscience/documents/geoscience-environmental.pdf) This degree combines chemistry, geology, and biological sciences. Most people who graduate with this degree will either go on to graduate studies or directly into the field working remediation and environmental assessment jobs.
- Petroleum Geology: (https://www.tarleton.edu/degrees/bachelors/bs-geoscience/documents/geoscience-petroleum.pdf) This degree is designed to aid those students going directly into petroleum work. Courses are much more intensive. Most majors will go on to do a master's degree, and then work in the petroleum field.
- Hydrogeology: (https://www.tarleton.edu/degrees/bachelors/bs-geoscience/documents/geoscience-hydrogeology.pdf) Another highly intensive degree, this is intended for those who wish to work on our water resources. Majors will go on to work in waterways and groundwater assessment.
- Earth Science: (https://www.tarleton.edu/degrees/bachelors/bs-geoscience/documents/geoscience-earthscience.pdf) A very diverse route for those who want a rounded science experience or want to explore the different earth science fields. Many will go on to get alternative teacher certification from the state of Texas or go on to graduate study in oceanography or meteorology.

General Education Requirements (p. 396):		42
CHEM 1311 [shared]	College Chemistry I (Lecture)	
CHEM 1111 [shared]	College Chemistry I (Laboratory)	
CHEM 1312 [shared]	College Chemistry II (Lecture)	
CHEM 1112 [shared]	College Chemistry II (Laboratory)	
EASC 2451	Introduction to Geographic Information Systems	4
GEOL 1403	Physical Geology	4
GEOL 3400	Crystallography and Mineralogy	4
GEOL 3406	Igneous and Metamorphic Petrology	4
GEOL 3310	Geomorphology	3

GEOL 3412 [WI (p. 396)]	Structural Geology	4
GEOL 3413	Stratigraphy and Sedimentology	4
GEOL 4305 [WI (p. 396)]	Field Geology	3
Total Hours		**72**

Earth Science

BIOL 1406	Biology for Science Majors	4
BIOL 1407	Biology for Science Majors II	4
GEOL 1404	Historical Geology	4
EASC 3320	Astronomy	3
GEOL 1307	Introduction to Environmental Science	3
EASC 3330	Meteorology	3
EASC 3340	Oceanography	3
EASC 4313 [WI (p. 396)]	Environmental Techniques	3
MATH 1314 [shared]	College Algebra	
MATH 1316	Plane Trigonometry	3
Select one of the following:		4
MATH 2413	Calculus I	
MATH 2414	Calculus II	
MATH 3450	Principles of Bio-Statistics	
Advanced GEOL, EASC, ENVS Electives		14
Total Hours		**48**

Environmental Science

BIOL 1406	Biology for Science Majors	4
BIOL 1407	Biology for Science Majors II	4
BIOL 4401	Ecology	4
SOIL 3301 & SOIL 3101	Soil Science and Soil Science Laboratory	4
EASC 3350	Environmental Science	3
EASC 3340	Oceanography	3
EASC 4313 [WI (p. 396)]	Environmental Techniques	3
ENVS 1101	Environmental Science Introductory Seminar	1
ENVS 4185	Seminar	1
GEOL 1307	Introduction to Environmental Science	3
GEOL 3320	Hydrogeology	3
CHEM 2323 & CHEM 2123	Organic Chemistry I and Organic Chemistry I Laboratory	4
CHEM 4477	Environmental Chemistry	4
MATH 1314 [shared]	College Algebra	
MATH 1316	Plane Trigonometry	3
MATH 3450	Principles of Bio-Statistics	4
Total Hours		**48**

Geology

Select one of the following:		8
BIOL 1406 & BIOL 1407	Biology for Science Majors and Biology for Science Majors II	
PHYS 1401 & PHYS 1402	College Physics I and College Physics II	
PHYS 2425 & PHYS 2426	University Physics I and University Physics II	
GEOL 1404	Historical Geology	4
GEOL 3405	Paleontology	4
GEOL 3314	Geochemistry	3
GEOL 4311	Economic Geology	3
EASC 4313 [WI (p. 396)]	Environmental Techniques	3
MATH 1314 [shared]	College Algebra	
MATH 1316	Plane Trigonometry	3
Select one of the following:		4
MATH 2413	Calculus I	
MATH 2414	Calculus II	
MATH 3450	Principles of Bio-Statistics	
Electives		6
Advanced GEOL, EASC, ENVS electives		10
Total Hours		**48**

Hydrogeology

GEOL 1307	Introduction to Environmental Science	3
GEOL 3314	Geochemistry	3
GEOL 3320	Hydrogeology	3
EASC 3350	Environmental Science	3
EASC 4313 [WI (p. 396)]	Environmental Techniques	3
SOIL 3301 & SOIL 3101	Soil Science and Soil Science Laboratory	4
Select one of the following:		4
CHEM 2323 & CHEM 2123	Organic Chemistry I and Organic Chemistry I Laboratory	
CHEM 3407	Quantitative Analysis	
CHEM 4477	Environmental Chemistry	
Placement is required for Precalculus (MATH 2412)		
MATH 2412 [shared]	Precalculus Math	
or MATH 1316	Plane Trigonometry	
MATH 2413	Calculus I	4
MATH 3450	Principles of Bio-Statistics	4
PHYS 2425	University Physics I	4
Advanced Electives		13
Total Hours		**48**

Petroleum Geology

GEOL 1404	Historical Geology	4
GEOL 3405	Paleontology	4
GEOL 3314	Geochemistry	3
GEOL 4311	Economic Geology	3
GEOL 4312	Petroleum and Subsurface Geology	3
GEOL 4316	Well Log Analysis	3
GEOL 4317	Seismic Interpretation	3
GEOL 4600	Field Camp	6
MATH 1342	Elementary Statistical Methods	3
Placement is required for Calculus (MATH 2413)		
MATH 2413 [shared]	Calculus I	
MATH 2414	Calculus II	4
PHYS 2425	University Physics I	4
PHYS 2426	University Physics II	4
GEOL Electives		4
Total Hours		**48**

Professors

- Dr. Shaukat Goderya
- Dr. Michael Hibbs
- Dr. Arthur Low
- Dr. Daniel Marble
- Dr. Linda Schultz
- Srinivasan, Rajani Dr.

Associate professors

- Dr. Peter Bell
- Dr. Anne Egelston
- Dr. Catherine Ronck
- Dr. Lance Whaley

Master Intructors

- Mrs. Joree Burnett

Instructors

- Dr. Khaled Chowdhury
- Dr. Mary Fennimore
- Mr. Rex Gamble
- Mr. Kris Juntunen
- Mrs. Melissa Lewis
- Dr. Bimal Pandey
- Rackov, Celyna Dr.
- Dr. Melissa Williams

Assistant professors

- Jimenez, Angel Dr.
- Marble, Christopher Dr.

Visiting Instructor

- Ogletree, Doug Mr.

Professors emeriti

- Dr. Phil Murry
- Dr. Carol Thompson

Chemistry Courses

CHEM 1106. Introductory Chemistry I. 1 Credit Hour (Lecture: 0 Hours, Lab: 1 Hour).

CHEM 1107. Introductory Chemistry II (lab). 1 Credit Hour (Lecture: 0 Hours, Lab: 1 Hour).

CHEM 1109. General Chemistry for Engineering Majors. 1 Credit Hour (Lecture: 0 Hours, Lab: 1 Hour).

CHEM 1111. College Chemistry I (Laboratory). 1 Credit Hour (Lecture: 0 Hours, Lab: 3 Hours).
Basic laboratory experiments supporting theoretical principles presented in CHEM 1311; introduction of the scientific method, experimental design, data collection and analysis, and preparation of laboratory reports. Prerequisite: MATH 1314 or coreq in either of MATH 1316, 2412, or 2413; Corequisite: CHEM 1311 Lab fee: $2.

CHEM 1112. College Chemistry II (Laboratory). 1 Credit Hour (Lecture: 0 Hours, Lab: 3 Hours).
Basic laboratory experiments supporting theoretical principles presented in CHEM 1312; introduction of the scientific method, experimental design, chemical instrumentation, data collection and analysis, and preparation of laboratory reports. Prerequisite: MATH 1314; CHEM 1111 or 1411; Coreq with CHEM 1312 Lab fee: $2.

CHEM 1302. Essential Elements of Chemistry. 3 Credit Hours (Lecture: 2 Hours, Lab: 3 Hours).
An introduction to the science of chemistry with a broad overview of the essential elements of chemistry and real-life applications. Enrollment in this course is restricted to Interdisciplinary Studies majors. Lab fee: $2.

CHEM 1306. Introductory Chemistry I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

CHEM 1307. Introductory Chemistry II (lecture). 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

CHEM 1309. General Chemistry for Engineering Majors. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

CHEM 1311. College Chemistry I (Lecture). 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Fundamental principles of chemistry for majors in the sciences, health sciences, and engineering; topics include measurements, fundamental properties of matter, states of matter, chemical reactions, chemical stoichiometry, periodicity of elemental properties, atomic structure, chemical bonding, molecular structure, solutions, properties of gases, and an introduction to thermodynamics and descriptive chemistry. Prerequisite: MATH 1314, or coreq in either of MATH 1316, 2412, or 2413.

CHEM 1312. College Chemistry II (Lecture). 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Chemical equilibrium; phase diagrams and spectrometry; acid-base concepts; thermodynamics; kinetics; electrochemistry; nuclear chemistry; an introduction to organic chemistry and descriptive inorganic chemistry. Prerequisite: CHEM 1311 or CHEM 1411.

CHEM 1406. Introductory Chemistry I. 4 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).

CHEM 1407. Fundamentals of Chemistry. 4 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
A beginning chemistry course for students in applied sciences who need only one semester of general chemistry. The course includes the structure, properties and changes in matter, quantitative relationships in reactions, solutions, equilibrium, pH, buffers and nuclear chemistry. Not recommended for science majors or pre-professional students in health related fields. Does not meet prerequisite for CHEM 1412 or 2423. Lab fee: $2.

CHEM 1409. College Chemistry for Engineers. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
Introduction to important concepts and principles of chemistry with an emphasis on areas considered most relevant in an engineering context. Registration will be restricted to engineering majors only. Engineering students many not receive credit for both CHEM 1409, CHEM 1311 and 1111, and CHEM 1411. Prerequisite: MATH 1314, or MATH 2412, or MATH 2413, or concurrent enrollment. Lab fee: $2.

CHEM 2123. Organic Chemistry I Laboratory. 1 Credit Hour (Lecture: 0 Hours, Lab: 4 Hours).
Laboratory portion associated with lecture CHEM 2323 Prerequisites: CHEM 1312 and 1112 or CHEM 1409(for Engineering Majors only) prerequisite or co-enrollment in CHEM 2323 Lab fee: $2.

CHEM 2125. Organic Chemistry II Laboratory. 1 Credit Hour (Lecture: 0 Hours, Lab: 4 Hours).
Laboratory portion associated with lecture CHEM 2325 Prerequisite: CHEM 2123; CHEM 2323; prerequisite or co-enrollment in CHEM 2325 Lab fee: $2.

CHEM 2323. Organic Chemistry I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The first semester of a year sequence in the chemistry of carbon compounds involving their synthesis, reaction mechanisms, nomenclature, physical and spectral properties. Includes compounds of theoretical, biological, agricultural, and industrial importance. Prerequisites: CHEM 1312 and 1112 or CHEM 1409(for Engineering Majors only).

CHEM 2325. Organic Chemistry II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A continuation of CHEM 2323. The laboratory includes an introduction to qualitative organic analysis. This course is a prerequisite to all organic chemistry courses at the junior or higher level. Prerequisite: CHEM 2323 (2423).

CHEM 2423. Organic Chemistry I. 4 Credit Hours (Lecture: 3 Hours, Lab: 4 Hours).
The first semester of a year sequence in the chemistry of carbon compounds involving their synthesis, reaction mechanisms, nomenclature, physical and spectral properties. Includes compounds of theoretical, biological, agricultural, and industrial importance. Prerequisites: CHEM 1312 and 1112 or CHEM 1409(for Engineering Majors only) Lab fee: $2.

CHEM 2425. Organic Chemistry II. 4 Credit Hours (Lecture: 3 Hours, Lab: 4 Hours).
A continuation of Organic Chemistry I (CHEM 2323 and CHEM 2123). The laboratory includes an introduction to qualitative organic analysis. This course is a prerequisite to all organic chemistry courses at the junior or higher level. Prerequisites: CHEM 2423 or both CHEM 2323 and CHEM 2123. Lab fee: $2.

CHEM 3124. Physical Chemistry II Laboratory. 1 Credit Hour (Lecture: 0 Hours, Lab: 4 Hours).
A laboratory introduction to the microscopic properties of nature, including an introduction to quantum mechanics and its applications to atomic and molecular spectroscopy. Prerequisite: CHEM 3423 Lab fee: $2.

CHEM 3314. Geochemistry. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A survey of the application of chemical principles to problems of geology. Topics include the origin and distribution of the elements in addition to exploring the behavior and distribution of various elements in igneous, metamorphic, and sedimentary rocks. Basic concepts of thermodynamics, solution chemistry, and isotope geochemistry will be discussed. Credit for both CHEM 3314 and GEOL 3314 will not be awarded. Prerequisites: CHEM 1312 and 1112. Lab fee: $2.

CHEM 3324. Physical Chemistry II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introduction to the microscopic properties of nature, including an introduction to quantum mechanics and its applications to atomic and molecular spectroscopy. Prerequisite: CHEM 3423.

CHEM 3407. Quantitative Analysis. 4 Credit Hours (Lecture: 2 Hours, Lab: 6 Hours).
A study of the experimental and theoretical principles concerning gravimetric and volumetric analysis. Topics include data treatment, equilibrium, precipitation, neutralization, oxidation, reduction, potentiometry, and introduction to spectroscopy. Prerequisite: A grade of C or better in 8 hours of freshman CHEM; junior classification or approval of department head. Lab fee: $10.

CHEM 3423. Physical Chemistry I. 4 Credit Hours (Lecture: 3 Hours, Lab: 4 Hours). [WI (p. 396)]
A study of chemical thermodynamics and its application to chemical equilibrium; the macroscopic properties of matter including real gases, solutions, and phase changes; chemical kinetics. Prerequisite: MATH 2414; PHYS 1402 or 2426 or approval of department head. Lab fee: $2.

CHEM 4086. Chemistry Problems: Undergraduate Research. 1-4 Credit Hours (Lecture: 0 Hours, Lab: 1-4 Hours).
Conducting an undergraduate research project in Chemistry. May be repeated for credit. A maximum of four hours may be applied toward degree requirements in chemistry. Prerequisite: Approval of department head.

CHEM 4160. Professional Lab Safety Techniques and Ethics in Chemistry. 1 Credit Hour (Lecture: 1 Hour, Lab: 1 Hour).
A capstone course intended for a chemistry major to take during their senior year. Lectures will cover the issues of ethics and lab safety in chemistry as well as the societal impacts of chemistry. The lab portion will be devoted to analyzing case studies, doing literature research, and giving professional style presentations. Prerequisite: Student must be within one year of graduation. Lab fee: $2.

CHEM 4327. Structural Organic Analysis. 3 Credit Hours (Lecture: 1 Hour, Lab: 6 Hours).
The identification of the principal classes of organic compounds. Prerequisites: CHEM 2425 or both CHEM 2325 and CHEM 2125. Lab fee: $2.

CHEM 4328. Inorganic Chemistry. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Discussion of the models of inorganic chemistry including atomic structure, chemical bonding, periodic properties, stereochemistry, reaction mechanisms, and coordination chemistry. Properties of specific elements and families are also presented Prerequisites: CHEM 2425 or both CHEM 2325 and CHEM 2125, and junior classification or approval of department head.

CHEM 4329. Polymers. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A basic study of polymer chemistry, with special emphasis on the effect of the structure of monomers upon the structure of the polymers, is presented. Prerequisites: CHEM 2425 or both CHEM 2325 and CHEM 2125.

CHEM 4345. Medicinal Chemistry. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An examination of the principles of drug action including receptor-effector theories and the effects of physico-chemical properties on biological activity. The principles of drug design, synthesis, and metabolism will be presented. Prerequisites: CHEM 2425 or CHEM 2325 and CHEM 2125, and BIOL 1407.

CHEM 4374. Biochemistry I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introduction to the basic principles of biological chemistry and to fundamental processes of plants, animals, and microorganisms. Students cannot receive credit for both BIOL 5374 and BIOL/CHEM 4374. Prerequisite: 8 hours of BIOL, and either (CHEM 2423 or both CHEM 2323 and 2123 with "C" or better).

CHEM 4375. Biochemistry II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A detailed survey of intermediary metabolism. The metabolism of carbohydrates, lipids, proteins and nucleic acids, and the regulation of metabolism are emphasized. Credit for both BIOL 4375 and CHEM 4375 will not be awarded. Prerequisite: BIOL/CHEM 4374, or approval of department head.

CHEM 4378. Biochemistry Lab. 3 Credit Hours (Lecture: 1 Hour, Lab: 6 Hours).
Principles and applications of basic methodology for the isolation, purification, characterization, and quantitative determination of biologically important compounds. Credit for both BIOL 4378 and CHEM 4378 will not be awarded. Prerequisite: BIOL 4374 or CHEM 4374 or concurrent enrollment, or approval of the department head. Lab fee: $2.

CHEM 4408. Instrumental Analysis. 4 Credit Hours (Lecture: 2 Hours, Lab: 6 Hours).
A study of the theory and use of instruments for chemical analysis. Techniques include absorption spectroscopy, nuclear magnetic resonance, atomic absorption, flame emission, mass spectroscopy, chromatography, potentiometry, and polarography. Prerequisites: CHEM 3407 and 1 semester of organic chemistry or approval of department head. Lab fee: $2.

CHEM 4477. Environmental Chemistry. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
This is an undergraduate course intended for any student who has completed College chemistry 1 and college chemistry II with an interest towards Environmental Science. This course includes both lecture and laboratory components. Lectures will cover topics which provide the understanding of interactions between chemical compounds whether anthropogenic or natural with the ecosystem. This course will provide qualitative and quantitative knowledge on effects of changes in water, soil, air and its effects on the environment. The lab portion includes bench scale and field scale experiments to put theory to practice. Water and soil samples will be collected from different sources and lab made samples will be used to detect and analyze the various types of pollutants and their mitigation methods will be discussed. Prerequisites: CHEM 1312 and 1112. Lab fee: $2.

Chemistry, Geoscience & Physics Courses

Earth Science Courses

EASC 2310. Earth Systems Science. 3 Credit Hours (Lecture: 2 Hours, Lab: 3 Hours).
Introduction to Earth and Space Science. A study of Earth Systems (Geosphere, Hydrosphere, Cryosphere, and Atmosphere), Cosmology, and Astronomy. Lab fee: $2.

EASC 2451. Introduction to Geographic Information Systems. 4 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
GIS is a computer-based information system used in managing and analyzing spatial data. This course introduces students to the science, theory and techniques of GIS including basic geodesy, spatial data capture, management and analysis, and cartographic output. Emphasis is placed on the use of technical analysis and software in order to provide students with skills and a conceptual base on which they can build further expertise in GIS. After completing this course, students will master basic concepts of GIS and hands-on skills with ArcGIS, a widely-used GIS package. Students will learn how to create, manipulate, project, and interpret geographically-referenced data. Students are strongly encouraged to take GEOG 1451: Pre-GIS. Students can only receive credit for either WSES 2451, GEOG 2451, EASC 2451 or ENVS 2451. Lab fee: $2.

EASC 3310. Geographic Information Systems for the Sciences. 3 Credit Hours (Lecture: 1 Hour, Lab: 5 Hours).
Applications of geographic information systems in the geological, environmental, earth, and other sciences. Laboratory exercises will apply GIS programs to geological and environmental problems. Lab fee: $2.

EASC 3320. Astronomy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of astronomical instrumentation and methodologies, a survey of the solar system, star evolution, cosmology and the origins of the universe, and a review of galactic types and histories. Theory reinforced by field experience. Prerequisites: GEOL 1403 and 1404 or approval of department head. Lab fee: $5.

EASC 3330. Meteorology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the Earth's atmosphere and the basic principles of weather analysis, climate and climatic controls, with emphasis on climatic effects on man. Theory reinforced by practical field experience. Prerequisite: GEOL 1403 or approval of department head. Lab fee: $5.

EASC 3340. Oceanography. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of our oceans from the physical, chemical, biological, and geological aspects. Theory reinforced by practical field experience. Prerequisite: GEOL 1403 Lab fee: $5.

EASC 3350. Environmental Science. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Integration of existing knowledge of geological, hydrological, and environmental processes associated with environmental management and land-use planning issues; including discussions of surface and subsurface water quality and quantity, soil erosion, solid and liquid waste disposal and flooding. Case studies involving environmental impact analysis. Prerequisites: GEOL 1403, 1407; CHEM 1311 and 1111, or approval of department head.

EASC 3360. Remote Sensing. 3 Credit Hours (Lecture: 2 Hours, Lab: 3 Hours).
An introduction to the feautres and interpretation of remotely sensed images from airborn and satellite platforms. Formats of imagery will include radar, thermal, and multispectral. Focus on interpretation of images for various usages, including agriculture, forestry, geology, urban landscapes, and geography Prerequisite: Junior classification Lab fee: $2.

EASC 3370. Biogeography. 3 Credit Hours (Lecture: 2 Hours, Lab: 3 Hours).
Geographical distribution of plants and animals. Explores the concepts of evolutionary change, allopatric and sympatric speciation, vicariance and dispersal and how these processes affect species distributions through time. Covers the effects of topography, physical, and climactic factors which affect species distributions. Combines data and discoveries from a variety of fields, including biology, paleontology, ecology, evolution, and geology. Lab fee: $2.

EASC 4086. Problems. 1-3 Credit Hours (Lecture: 0 Hours, Lab: 1-3 Hours).
A course open to capable Earth Science and Geology students. Topics may vary according to student need. May be repeated for credit, subject to the approval of the department head. Prerequisite: Approval of department head.

EASC 4313. Environmental Techniques. 3 Credit Hours (Lecture: 2 Hours, Lab: 3 Hours). [WI (p. 396)]
A survey of techniques used in environmental investigations focusing on sampling and geochemical methods important to the environmental industry. Topics to be covered may include topographic surveying, geochemical sampling in surface waters and groundwater, soil sampling and site characterization. Prerequisites: GEOL 1403, and MATH 1316, MATH 2412, or MATH 2413 or approval of department head. Lab fee: $2.

EASC 4384. Earth Science Internship. 3 Credit Hours (Lecture: 1 Hour, Lab: 8 Hours).
Pre-approved and supervised work experience in an environmental or earth science position in industry or the public sector. Prerequisites: Junior classification and approval of department head.

Environmental Science Courses

ENVS 1101. Environmental Science Introductory Seminar. 1 Credit Hour (Lecture: 1 Hour, Lab: 0 Hours).
This course introduces students to the interdisciplinary field of environmental science. The class will introduce students to the major science subfields of ecology, geology, and chemistry as well as the social policy subfield consisting of laws and regulations, ethics, and geography.

ENVS 1302. Science, Technology, and the Environment. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course introduces students to the interdisciplinary field of environmental science and explores the interrelationships between science, technology, environment, and society. This class examines the scientific and social origins of environmental problems and evaluates the complex role of technology in creating and resolving these concerns.

ENVS 1308. Environmental Science II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Course discusses how human actions impact the organic components of ecological systems in ways that change the natural environment.

ENVS 2451. Introduction to Geographic Information Systems. 4 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
GIS is a computer-based information system used in managing and analyzing spatial data. This course introduces students to the science, theory and techniques of GIS including basic geodesy, spatial data capture, management and analysis, and cartographic output. Emphasis is placed on the use of technical analysis and software in order to provide students with skills and a conceptual base on which they can build further expertise in GIS. After completing this course, students will master basic concepts of GIS and hands-on skills with ArcGIS, a widely-used GIS package. Students will learn how to create, manipulate, project, and interpret geographically-referenced data. Students are strongly encouraged to take GEOG 1451: Pre-GIS. Students can only receive credit for either WSES 2451, GEOG 2451, EASC 2451 or ENVS 2451. Lab fee: $2.

ENVS 3302. Soils, Land Use, and The Environment. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Interactions among soil physical, chemical, and biological processes affecting soil, water, and environmental quality. Addressed in relation to land use management practices such as erosion control, soil conservation, soil reclamation, riparian buffers, bioswales, and artificial wetlands. Land use planning tools, including WebSoil Survey and GIS will be used. Prerequisites: WSES/ENVS 3401; or WSES/SOIL 3301 and WSES/SOIL 3101.

ENVS 3305. GIS for Natural Resource Scientists. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
An intermediate course on the use of geographic information systems (GIS) in natural resource management. Builds on concepts learned in introductory GIS course. Laboratory exercises will apply knowledge learned in lectures to solve real world problems in natural resource management using GIS software. Prerequisite: WSES 2451.

ENVS 3307. Systems Thinking. 3 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
This course focuses on the examination and analysis of complex systems, particularly in the environmental, natural resources, and sustainability fields. Major topics will include system structure, system behavior, feedback loops, stock and flow models, non-linear and emergent properties, self-organization, and the application of systems thinking to problem-solving. A significant component of the course will be development and analysis of computer models of complex systems. Prerequisite: C or better in MATH 1314 or equivalent, or approval of the instructor.

ENVS 3310. Environmental Policy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
An introduction to the politics of environmental protection in America. The focus of the course is upon domestic environmental policy with particular attention paid to traditional media - air, water, and hazardous waste. Prerequisite: GOVT 2305.

ENVS 3315. Sustainability. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Explore the varied perspectives of sustainability and analyze factors that contribute to or decrease system sustainability. Investigation of the social, economic, and environmental barriers to achieving sustainable systems and options for overcoming these barriers. Credit cannot be awarded for both ENVS 3315 and WSES 3315. Prerequisite: GOVT 2305 or GOVT 2306 or POLS 2304 or approval of the instructor.

ENVS 4084. Environmental Science Internship. 1-6 Credit Hours (Lecture: 1-6 Hours, Lab: 0 Hours).
Formally arranged and approved on-the-job training with a cooperating sponsor in government or private sector of the environmental field. A minimum of 40 hours of training is required for each hour of academic credit. A maximum of six hours of credit may be earned. Oral and written reports of the experience are required. Prerequisites: Junior or Senior classification and approval of the instructor.

ENVS 4086. Environmental Problems. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 0 Hours).
Independent study or research of current topics in student's major. Content and credit dependant on depth of study. May be repeated for credit subject to approval of program lead or department head as appropriate.

ENVS 4088. Undergraduate Research. 1-6 Credit Hours (Lecture: 1-6 Hours, Lab: 0 Hours).
Fundamental research methods will be addressed through a faculty-directed project. Participation in an abbreviated lecture series may be required. Project components may include a literature review, data collection and analysis, testing, planning, project design, and/or computer modeling. the student may be required to prepare a final report and produce a presentation. Prerequisite: approval of the instructor.

ENVS 4090. Special Topics. 1-6 Credit Hours (Lecture: 0-6 Hours, Lab: 0 Hours).
Selected topics in environmental science. May be repeated for credit when topics vary.

ENVS 4185. Seminar. 1 Credit Hour (Lecture: 1 Hour, Lab: 0 Hours).
A review of current problems and developments in environmental arena. Discussions of current literature and research. May be repeated once for credit.

ENVS 4187. Environmental Science Capstone. 1 Credit Hour (Lecture: 1 Hour, Lab: 0 Hours).
Integrate and use fundamental concepts learned in previous environmental science courses to research and analyze real-world environmental issues. Oral and written reports on experiential learning, supplemented by appropriate internet and multimedia materials.

ENVS 4301. Environmental Law. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This class focuses on US environmental law and regulations including US administrative law and common law. Major laws will be examined including the Clean Air Act, the Clean Water Act, the Resource Conservation and Recovery Act, Comprehensive Environmental Response, Compensation and Liability Act and the National Environmental Protection Act. Last, the class highlights the importance of citizen participation in the legal process. Prerequisite: GOVT 2305.

ENVS 4302. Land Use in the American West. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Beginning with the arrival of humans on the continent, the course comprehensively explores the environmental history of the American West, or the US territory west of the 100th meridian. Students will apply their understanding of the dynamics of the US West to a case study of their choosing using the food-energy-water nexus and the Ecological Society of America's Four-Dimensional Ecological Education Framework (4DEE).

ENVS 4310. Qualitative Research Methods. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course introduces students to key methodologies, including case studies, interviews, focus groups, and content analysis. Students will learn how to design qualitative studies, collect and analyze data, and interpret findings through thematic and narrative approaches. Through hands-on projects and critical discussions, students will develop the skills necessary to conduct rigorous qualitative research and effectively communicate their findings. Prerequisite: ENGL 1301, ENGL 1302.

ENVS 4312. International Environmental Issues. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introduction to environmental politics and policy at the international level. The focus of this course is upon global environmental policy with particular attention paid to the processes that create and shape global environmental policy.

ENVS 4340. Environmental Science Field Study. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A field course involving visits to environmental science businesses, agencies, and organizations including TCEQ, watershed management organizations, river authorities, energy companies, and environmental advocacy organizations to learn about their work and engage in hands-on assessment activities. Requires an extended field trip at student's expense. Prerequisite: Grade of C or better in either WSES 2405 or BIOL 4401.

ENVS 4350. Energy and the Environment. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Overview of the relationship between domestic energy supply and its environmental impacts. This class investigates international environmental affairs' impact on the United States' domestic energy sources. Prerequisite: Communication Core Component Area complete.

ENVS 4380. Environmental Science Capstone. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
Integrate and use fundamental concepts learned in previous environmental science courses to research and analyze real-world environmental issues. Oral and written reports on experiential learning, supplemented by appropriate internet and multimedia materials. Prerequisite: Senior Classification.

ENVS 4390. Special Topics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
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Forensic Science Courses

FORS 3315. Rules of Criminal Evidence. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An analysis of the procedures and rules of evidence applied to the acquisition, offering, admissibility, and presentation of evidence from the crime scene, courtroom, and appellate court perspectives.

FORS 3320. Crime Scene Investigation. 3 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
Principles, procedures, processes and hands-on experience for conducting investigations ranging from general crime scene to death investigations. Prerequisite: FORS 1301 Lab fee: $2.

FORS 4310. Forensic Case Studies. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Development of reasoning strategies by examining a variety of case studies; science and scientific method solving real-world problems as part of an investigative team. Prerequisites: FORS 3315 and FORS 3320.

FORS 4385. Seminar. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Topics will vary according to timeliness and special needs. May be taken more than once for credit. Prerequisite: FORS 1301.

Geology Courses

GEOL 1101. Earth Sciences for Non-Science Majors I. 1 Credit Hour (Lecture: 0 Hours, Lab: 1 Hour).

GEOL 1102. Earth Sciences for Non-Science Majors II. 1 Credit Hour (Lecture: 0 Hours, Lab: 1 Hour).

GEOL 1103. Physical Geology. 1 Credit Hour (Lecture: 0 Hours, Lab: 1 Hour).

GEOL 1104. Historical Geology. 1 Credit Hour (Lecture: 0 Hours, Lab: 1 Hour).

GEOL 1105. Environmental Science. 1 Credit Hour (Lecture: 0 Hours, Lab: 1 Hour).

GEOL 1301. Earth Sciences for Non-Science Majors I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

GEOL 1302. Geology of National Parks. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introduction to the geology of the US National Parks. Includes threats to our national parks such as increasing tourism, encroaching development, air and water pollution, and natural hazards.

GEOL 1303. Physical Geology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

GEOL 1304. Historical Geology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

GEOL 1305. Environmental Science. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

GEOL 1307. Introduction to Environmental Science. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduction to the study of the environment. The course will examine air, water, and soil pollution, and pollution remediation. Energy, mineral resources, and land use will be studied. The course will also emphasize a study of the water supply, water use, and water management. Lab fee $2.

GEOL 1308. Natural Disasters. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course focuses on the causes, effects, and mitigation of natural disasters. Topics covered include plate tectonics, earthquakes, volcanoes, mass wasting, subsidence, floods, convective storms, wildfires, droughts, coastal hazards, and asteroid impacts. Emphasis will be on methods used by scientists to monitor and study these natural phenomena, as well as the economic and societal impact of and response to the events. Lab fee $2.

GEOL 1402. Earth Sciences for Non-Science Majors II. 4 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).

GEOL 1403. Physical Geology. 4 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
An introduction to the physical processes that operate in and on the planet Earth. Topics of discussion include: the Earth's structure, rocks and minerals, volcanoes, earthquakes, groundwater, rivers, glaciers, and deserts. Lab fee: $2.

GEOL 1404. Historical Geology. 4 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
History of the Earth from the formation of the solar system to the present. Topics include the Earth's development, evolution of life on Earth, changes in the Earth's geography throughout its history, and the tools geologists use to investigate these topics. Lab fee: $10.

GEOL 1408. Natural Disasters. 4 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
Course focuses on the causes, effects, and mitigation of natural disasters around the world. Topics covered will include: plate tectonics, earthquakes, volcanoes, tsunami, landslides, meteor impacts, climate change, and major weather events such as tornadoes, floods, and hurricanes. Emphasis will be on methods used by scientists to monitor and study these natural phenomena, as well as the economic and societal impact of and response to the events. Lab fee: $2.

GEOL 1445. Oceanography. 4 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).

GEOL 1447. Meteorology. 4 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).

GEOL 3310. Geomorphology. 3 Credit Hours (Lecture: 2 Hours, Lab: 3 Hours).
Study of surface processes in geological environments with emphasis on environmental and engineering applications. Topics include weathering, soil formation and erosion, landslides, and landforms associated with rivers, groundwater, coasts, arid and semi-arid climates. Laboratory emphasizes aerial photo and topographic map interpretation. Prerequisite: GEOL 1403. Lab fee: $10.

GEOL 3314. Geochemistry. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A survey of the application of chemical principles to problems of geology. Topics include the origin and distribution of the elements and exploration of the behavior and distribution of various elements in igneous, metamorphic, and sedimentary rocks. Basic concepts of thermodynamics, solution chemistry, and isotope geochemistry will be discussed. Credit for both GEOL 3314 and CHEM 3314 will not be awarded. Prerequisites: CHEM 1312 and 1112. Lab fee: $2.

GEOL 3320. Hydrogeology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Aquifer characteristics, physical principles of groundwater flow, well analysis, geologic controls on local and regional groundwater movement, water chemistry, groundwater pollution, legal issues in groundwater. Prerequisites: GEOL 1403, CHEM 1312 and 1112, and either MATH 1316, or MATH 2412, or MATH 2413 Lab fee: $2.

GEOL 3400. Crystallography and Mineralogy. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
A study of the basic crystallographic forms, some of the common ore and rock forming minerals. An introduction to Optical Mineralogy. Prerequisite: GEOL 1403. Lab fee: $2.

GEOL 3405. Paleontology. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
An introduction to the study of fossils. A survey of the systematics, evolution and paleoecology of microfossils and important macrofossil groups. Prerequisite: GEOL 1403, GEOL 1404 Lab fee: $2.

GEOL 3406. Igneous and Metamorphic Petrology. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
An introduction to the origin, characteristics, and associations of igneous and metamorphic rocks. Introduction to igneous phase diagrams and metamorphic phase equilibria. Prerequisites: GEOL 3400, CHEM 1311 and 1111, 1312 and 1112, GEOL 1403, MATH 1314 or higher.

GEOL 3412. Structural Geology. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours). [WI (p. 396)]
A study of the forces and processes resulting in the deformation of and structural features of units in the Earth's crust. Lab work includes solution of problems by descriptive geometry, geologic and topographic maps and cross-sections. Prerequisites: GEOL 1403 and GEOL 1404 Lab fee: $2.

GEOL 3413. Stratigraphy and Sedimentology. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
A study of the origin, transportation, and deposition of sediments and the formation of sedimentary rocks. Emphasis on the study of strata and depositional systems and the utilization of sedimentology and stratigraphy in economic geology, environmental geology, hydrogeology and petroleum geology. Prerequisite: GEOL 1403 Lab fee: $2.

GEOL 4086. Problems. 1-3 Credit Hours (Lecture: 0 Hours, Lab: 1-3 Hours).
A course open to capable Geology and Earth Science students. Topics may vary according to student need. May be repeated for credit, subject to the approval of the department head. Prerequisite: Junior classification and approval of department head.

GEOL 4305. Field Geology. 3 Credit Hours (Lecture: 2 Hours, Lab: 3 Hours). [WI (p. 396)]
An introduction to the identification and interpretation of rocks and geological structures in the field. Field and laboratory activities include rock identification and interpretation, surveying with plane table and alidade, measuring and describing geological sections and field mapping with brunton compass, air photos, and topographic maps. Prerequisite: GEOL 1403, and 6 hrs upper level GEOL. Lab fee $2.

GEOL 4311. Economic Geology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introduction to the origin, classification, uses, and economics of metallic and nonmetallic mineral deposits. Prerequisite: GEOL 3406 or concurrent enrollment.

GEOL 4312. Petroleum and Subsurface Geology. 3 Credit Hours (Lecture: 2 Hours, Lab: 3 Hours).
Origin and distribution of petroleum. Geochemistry and maturation of organic matter; microbiological and thermal degradation of hydrocarbons, conventional and unconventional petroleum systems; principles of primary and secondary migration; seals; hydrocarbon traps, diagenesis of carbonate and clastic reservoir rocks; use of subsurface geologic data to prepare maps and identify prospects. Prerequisite: GEOL 1403 Lab fee:$2.

GEOL 4315. Sedimentary Petrology. 3 Credit Hours (Lecture: 2 Hours, Lab: 3 Hours).
Introduction to the physical, chemical, and biologic properties of sedimentary rocks, as revealed by petrographic microscopy, geochemical techniques, and field study. Emphasis is placed on the mineralogy, chemistry, textures, and sedimentary structures that characterize sedimentary rocks, and the relation of these features to their depositional origin and subsequent diagenesis. Prerequisites: GEOL 1403 and GEOL 3413 Lab fee: $2.

GEOL 4316. Well Log Analysis. 3 Credit Hours (Lecture: 2 Hours, Lab: 3 Hours).
Petrophysics and modern well-logging methods. Theory and applications of measurements of physical properties of the formation near the well bore, types of well logging tools, interpretation and use of well log information in petroleum exploration and development Prerequisite: GEOL 1403 Lab fee: $2.

GEOL 4317. Seismic Interpretation. 3 Credit Hours (Lecture: 2 Hours, Lab: 3 Hours).
Examination of seismic interpretation methods with emphasis on the petroleum industry. Topics include basic reflection theory, seismic acquisition and processing (prestack and poststack), incorporation of well data, picking and mapping horizons, structural interpretation, seismic stratigraphy, advanced seismic interpretation techniques, Direct Hydrocarbon Indicator (DHI), and depth conversion. Hands-on interpretation using standard industry software. Prerequisite: GEOL 3412, GEOL 3413. Lab fee: $2.

GEOL 4318. Plate Tectonics. 3 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
Plate Tectonics is the unifying theory in modern geology. This course will examine the driving mechanisms of crustal deformation, geophysical and geologic data supporting sea-floor spreading and plate motions, and major type of plate boundaries. We will explore implications of plate tectonics, continental drift, and mountain building, the role of plate tectonic cycle in renewal of Earth's surface, and relation with other geochemical cycles. Readings from original papers. Prerequisite: GEOL 1403, GEOL 3413, Geol 3312 Lab fee: $2.

GEOL 4320. Paleoecology. 3 Credit Hours (Lecture: 2 Hours, Lab: 3 Hours).
The ecology of ancient life. The course will focus on defining and identifying community structures through time, exploring the rise and fall of communities and the changing populations within them. Emphasis will be on field and hand-sample identification of community affinities based on sediments and life habit. Prerequisite: GEOL 1404, GEOL 3405, GEOL 3413 Lab fee: $2.

GEOL 4600. Field Camp. 6 Credit Hours (Lecture: 0 Hours, Lab: 12 Hours).
Field course practicing field application of geological techniques. Locations visited and material covered vary by year and host institution. Methods practiced include: field mapping, data collection, measurement of sections, and geologic reporting. Prerequisite: Vary by institution. Lab fee: $2.

Physics Courses

PHYS 1101. College Physics I. 1 Credit Hour (Lecture: 0 Hours, Lab: 1 Hour).

PHYS 1102. College Physics II. 1 Credit Hour (Lecture: 0 Hours, Lab: 1 Hour).

PHYS 1103. Stars and Galaxies. 1 Credit Hour (Lecture: 0 Hours, Lab: 1 Hour).

PHYS 1105. Elementary Physics I. 1 Credit Hour (Lecture: 0 Hours, Lab: 1 Hour).

PHYS 1301. College Physics I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

PHYS 1302. Essential Elements of Physics. 3 Credit Hours (Lecture: 2 Hours, Lab: 3 Hours).
This course introduces fundamental physics and astronomy concepts to students planning to become elementary and middle school teachers. Students are expected to design and conduct inquiry based experiments including the development of hypothesis, collection and analysis of data, and the use of appropriate laboratory equipment. Topics include motion, forces, energy, waves, light, electricity, magnetism, stellar and planetary evolution, and the atom. Enrollment in this course is restricted to Interdisciplinary Studies majors. Prerequisite: MATH 1314. Lab fee: $2.

PHYS 1303. Stars and Galaxies. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

PHYS 1305. Elementary Physics I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

PHYS 1321. Physics in Modern Medicine. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Basic physics principles (energy, waves, electromagnetism, Doppler shift, radioactivity, etc.) and their application to modern medicinal technology (endoscopes, ultrasound, lasers based treatments, medical imaging, therapeutic radiation, etc.). The course will partially fulfill a student's general science core requirement, but doesn't meet College or University Physics admission requirements for most professional programs (Medicine, Medical Physics, Dentistry, etc.) Corequisite: Any core math course. Prerequisite: Must be TSI ready in Math.

PHYS 1333. Physics For Future Presidents. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The course covers physics concepts and how these concepts impact problems of societal importance including energy security and sustainability, terrorism including radiological weapons (dirty bombs) and conventional attacks, nuclear weapons and nuclear proliferation, space technologies, physics in medicine (imaging and therapeutic radiation), and quantum physics (computing, information security, etc.). The course will provide a science and technology base needed by future leaders in government, companies, and organizations who must adapt to an ever-changing world where technologies play a critical role.

PHYS 1401. College Physics I. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
An introduction to mechanics, heat, and wave motion. This course is a trigonometry-based physics course. A student cannot get credit for PHYS 1401 if credit has been previously received for PHYS 2425. Prerequisite: MATH 1316, MATH 2412, MATH 2413, MATH 1352 or concurrent enrollment. Lab fee: $2.

PHYS 1402. College Physics II. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
An introduction to electricity and magnetism, light, and modern physics. This is a trigonometry-based physics course. A student cannot get credit for PHYS 1402 if credit has previously been received for PHYS 2426. Prerequisite: PHYS 1401 Lab fee: $2.

PHYS 1403. Stars and Galaxies. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
A laboratory science course of study in topics of astronomy and astrophysics, including the sun and its source of energy, stellar formation and evolution, black holes, galaxies, cosmology, and the creation and evolution of the universe. Lab fee: $2.

PHYS 1404. Solar System. 4 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).

PHYS 1405. Elementary Physics I. 4 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).

PHYS 1407. Elementary Physics II. 4 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).

PHYS 1410. Great Ideas of Physics. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
Great Ideas of Physics is a laboratory science course designed to introduce the student to the concepts of physics in an elementary mathematical setting, and to discuss their significance to science, technology, and society. Topics will be drawn from both classical and contemporary physics. This course cannot be used for credit toward a degree in physics or mathematics. Lab fee: $2.

PHYS 1411. Introductory Astronomy I. 4 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
A laboratory science course of study in the topics of astronomy and astrophysics, including the history of astronomy, Kepler's laws, gravitation, formation of the solar system, asteroids, comets, meteors, a detailed survey of the planets and their evolution, and discussion on the possibility of extraterrestial life in the universe. Lab fee: $2.

PHYS 1415. Physical Science I. 4 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).

PHYS 1417. Physical Science II. 4 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).

PHYS 2125. University Physics I. 1 Credit Hour (Lecture: 0 Hours, Lab: 1 Hour).

PHYS 2126. University Physics II. 1 Credit Hour (Lecture: 0 Hours, Lab: 1 Hour).

PHYS 2325. University Physics I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

PHYS 2326. University Physics II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

PHYS 2425. University Physics I. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
This is an introduction to mechanics, heat, and wave motion. This is a calculus-based physics course. Prerequisite: MATH 2413 or concurrent registration. Lab fee: $2.

PHYS 2426. University Physics II. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
This is an introduction to electricity, magnetism, optics, and modern physics. Prerequisites: PHYS 2425 and MATH 2414 or concurrent registration. Lab fee: $2.

PHYS 3331. Mechanics I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A mathematical treatment of the fundamentals of classical mechanics. Topics include particle dynamics in one, two, and three dimensions; conservation laws; dynamics of a system of particles; motion of rigid bodies; central force problems; accelerating coordinate systems; gravitation; Lagrange's equations and Hamilton's equations. Prerequisites: PHYS 2426; MATH 3306 and MATH 3433 or concurrent registrations.

PHYS 3332. Electromagnetic Field Theory. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Electrostatics; Laplace's equation; the theory of dielectrics; magnetostatic fields; electromagnetic induction; magnetic fields of currents; Maxwell's equations. Prerequisites: PHYS 2426, MATH 3306 and MATH 3433, or concurrent registrations.

PHYS 3333. Thermodynamics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
Concept of temperature, equations of state; the first and the second law of thermodynamics; entropy; change of phase; the thermodynamics functions. Prerequisite: PHYS 2426 (Prerequisite); MATH 3433 (Co-requisite).

PHYS 3334. Modern Physics I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Foundations of the atomic theory of matter; kinetic theory; elementary particles; radiations; atomic model; atomic structure; atomic spectra and energy levels; quantum theory of radiation; x-rays; special theory of relativity. Prerequisite: PHYS 2426 (Prerequisite); MATH 3433 or MATH 3306 (Corequisite).

PHYS 3350. Medical Physics I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The course will provide an introduction to the physics of human physiological processes as well as the physics used in the design of medical diagnostic tools and techniques. Prerequisite: PHYS 2426 or consent of the instructor.

PHYS 4086. Special Problems. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 1-3 Hours).
This course is designed to develop the theoretical or experimental capabilities, or both, of individual senior physics majors. Prerequisites: Senior classification and approval of department head.

PHYS 4161. Physics Research Project. 1 Credit Hour (Lecture: 1 Hour, Lab: 2 Hours). [WI (p. 396)]
Literature survey and preparation for, and initiation of, a research project agreed to between the student and a faculty advisor, to be completed and reported on in the Research Seminar course. Prerequisite: PHYS 3334.

PHYS 4162. Physics Research Seminar. 1 Credit Hour (Lecture: 1 Hour, Lab: 0 Hours). [WI (p. 396)]
An experimental or theoretical project will be continued by the student and the results reported in a seminar. Students who have not yet taken the ETS Physics field test are required to do so while enrolled in Seminar. Prerequisite: PHYS 4161.

PHYS 4303. Astronomy and Astrophysics. 3 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
A laboratory science course of study in the topics of astronomy and astrophysics, including Planetary Astronomy, Stellar Astrophysics, Galactic Astronomy, Cosmology and Astrobiology. Prerequisite: MATH 2413, PHYS 2425. Lab fee: $2.

PHYS 4330. Mathematical Methods for Physicists and Engineers. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Mathematical techniques from the following areas: infinite series; integral transforming; applications of complex variables; vectors, matrices, and tensors; special functions; partial differential equations; Green's functions; perturbation theory; integral equations; calculus of variations; and groups and group representatives. Credit for both ENPH 4330 and PHYS 4330 will not be awarded. Prerequisite: MATH 3306, 3433.

PHYS 4332. Optics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Huygen's principle applied to geometric optics; interference; diffraction; polarization; crystal optics; electromagnetic theory of light; interaction of light with matter. Prerequisites: PHYS 2442 and MATH 3306.

PHYS 4334. Modern Physics II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The constitution of the atomic nucleus; natural radioactivity; artificially induced nuclear transmutations; alpha, beta, and gamma decay; nuclear reactions; nuclear structure and nuclear forces; nuclear fission; neutron physics. Prerequisites: PHYS 3334 and MATH 3306 or concurrent registration.

PHYS 4335. Quantum Physics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The Schroedinger equation; one dimensional systems; the Heisenberg uncertainty principle; magnetic moments and angular momentum; two and three dimensional systems; approximation methods; scattering theory. Prerequisite: PHYS 3334 (Prerequisite); MATH 3306 or MATH 3433 (Co-requisite).

PHYS 4336. Solid State Physics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The basic ideas of physics are applied to the understanding of the properties of crystalline materials to include the definition of such materials, electrical and thermal conductivity, heat capacity, crystalline binding, the nature of metals, insulators, and semiconductors, dielectric properties, and magnetic properties. Credit for both ELEN 4336 and PHYS 4336 will not be awarded. Prerequisite: PHYS 3334; MATH 3306 or concurrent registration.

PHYS 4337. Nuclear Physics and Techniques. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
The study of nuclear phenomena and properties including mass, stability, magnetic moment, radioactive decay processes and angular momentum. The use of nuclear techniques as applied to other scientific fields including electronics and medicine. Prerequisite: PHYS 3334.

PHYS 4340. Advanced Physics Laboratory. 3 Credit Hours (Lecture: 1 Hour, Lab: 4 Hours). [WI (p. 396)]
A laboratory course focusing on advanced techniques and experiments drawn from the full range of physics classes. The student will understand the role of experimental design, advanced data analysis and reduction, error analysis, and the use of computers while investigating physical phenomena. Prerequisite: Corequisite: PHYS 3334. Lab fee: $30.

PHYS 4350. Medical Physics II. 3 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
The course covers the physics of ionizing radiation and its application in areas of medical physics, radiation safety, and manufacturing. Prerequisite: PHYS 3334 or consent of instructor. Lab fee: $8.

Division of Chemistry and Physics

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The Division of Chemistry and Physics provides rigorous, high-caliber programs with experts dedicated to student mastery. Located only an hour southwest of Fort Worth in the heart of Stephenville, the campus is nestled in the Hill Country of Texas, with access to nearby facilities and research opportunities in DFW, Austin, Waco, Abilene, and College Station.

Learning reaches beyond the classroom at Tarleton, and we are proud of our traditions of friendliness and of treating students with respect and individual attention. We take pride in our small advanced classes which provide access to our faculty in a one-on-one environment. Tarleton's faculty members are dedicated to your needs, and they make every effort to be responsive and progressive.

Tarleton's Division of Chemistry and Physics offers Bachelor of Science degrees in Physics (https://www.tarleton.edu/degrees/bachelors/bs-physics/), and Chemistry (https://www.tarleton.edu/degrees/bachelors/bs-chemistry/).

Bachelor of Science Degree in Chemistry

Chemistry is for students with the desire to be a part of the future and the drive to test established thought. Students who like to work with both their hands and their minds will enjoy the challenge and excitement of this creative science. Chemists work with highly sophisticated instruments, with computers, with basic lab ware and chemicals, and with other people.

Over 60% of all chemists work in industry, producing the products and technologies that shape our everyday lives - pharmaceuticals, textiles, rubber, glass, polymers, paper, conductors, and food. In the industrial environment, a chemist may be working in research, inventing, or improving a chemical compound or process. Other chemists are involved in manufacturing a product or running experiments to test the quality or safety of products.

More than 20 % of all chemists are engaged in teaching and/or research in schools, colleges, and universities. Chemists in educational institutions enjoy the challenge of communicating the excitement of chemistry to new generations.

Federal, state, and local governments employ about 10 % of the chemistry workforce. These chemists work in a variety of governmental agencies on issues dealing with science and technology, health care, the environment, defense, and industry. Individuals with degrees in chemistry are also found working in many diverse fields such as medicine, technical writing, law, information science, agriculture, health and safety, instrumentation, sales and personnel work, management, manufacturing, library science, engineering, environmental protection, forensics, materials science, and as small business owners.

Many chemistry graduates enter the job market directly; however, approximately 60% of graduates elect post-graduate study. Approximately 10,000 men and women receive an undergraduate degree in chemistry annually; however, this number has dropped somewhat in recent years, and the National Science Foundation has expressed much concern about whether there will be sufficient numbers of trained chemists in the future.

The demand for chemists remains strong in the 21st century as society moves into a more highly developed technological age dependent on materials and the science that produces them.

Accredited by the American Chemical Society, the Bachelor of Science degree in Chemistry prepares students for graduate studies or careers in the scientific community or academia.

General Education Requirements (p. 396):		42
CHEM 1311 [shared]	College Chemistry I (Lecture)	
CHEM 1111 [shared]	College Chemistry I (Laboratory)	
CHEM 1312 [shared]	College Chemistry II (Lecture)	
CHEM 1112 [shared]	College Chemistry II (Laboratory)	
CHEM 2323	Organic Chemistry I	3
CHEM 2123	Organic Chemistry I Laboratory	1
CHEM 2325	Organic Chemistry II	3
CHEM 2125	Organic Chemistry II Laboratory	1
CHEM 3407	Quantitative Analysis	4
CHEM 3423 [WI (p. 396)]	Physical Chemistry I	4
CHEM 4160	Professional Lab Safety Techniques and Ethics in Chemistry	1
CHEM 4408	Instrumental Analysis	4
CHEM 4086	Chemistry Problems: Undergraduate Research	1
ENGL 1301 [shared] [WI (p. 396)]	Composition I	
ENGL 1302 [shared] [WI (p. 396)]	Composition II	
ENGL 3309 [WI (p. 396)]	Professional Writing	3
Placement is required for Calculus 1 (MATH 2413)		
MATH 2413 [shared]	Calculus I	
MATH 2414	Calculus II	4
Total Hours		**71**

Biochemistry

BIOL 1406	Biology for Science Majors	4
BIOL 1407	Biology for Science Majors II	4
BIOL 3407	Microbiology	4
BIOL 3303	Genetics	3
BIOL 3103	Genetic Techniques	1
BIOL 3413	Molecular Biology	4
CHEM 4327	Structural Organic Analysis	3
or CHEM 4345	Medicinal Chemistry	
CHEM 3324	Physical Chemistry II	3
CHEM 4328	Inorganic Chemistry	3
CHEM 4329	Polymers	3
CHEM 4374	Biochemistry I	3
CHEM 4375	Biochemistry II	3
BIOL 4378	Biochemistry Lab	3
PHYS 1401	College Physics I	4
PHYS 1402	College Physics II	4
Total Hours		**49**

Environmental Chemistry

GEOL 1403	Physical Geology	4
BIOL 1406	Biology for Science Majors	4
GEOL 1307	Introduction to Environmental Science	3
EASC 3350	Environmental Science	3
BIOL 3407	Microbiology	4

MATH 3450	Principles of Bio-Statistics	4
SOIL 3101	Soil Science Laboratory	1
SOIL 3301	Soil Science	3
EASC 4313 [WI (p. 396)]	Environmental Techniques	3
CHEM 4327	Structural Organic Analysis	3
CHEM 4328	Inorganic Chemistry	3
CHEM 4477	Environmental Chemistry	4
Advanced Chemistry Elective		2
COMM 2302 [shared]	Business and Professional Speaking	
PHYS 1401	College Physics I	4
PHYS 1402	College Physics II	4
Total Hours		**49**

Forensic Chemistry

CRIJ 1301	Introduction to Criminal Justice	3
CRIJ 1306	Court Systems and Practices	3
BIOL 1406	Biology for Science Majors	4
BIOL 3407	Microbiology	4
MATH 3450	Principles of Bio-Statistics	4
CHEM 4327	Structural Organic Analysis	3
CHEM 4374	Biochemistry I	3
CHEM 4378	Biochemistry Lab	3
CRIJ 3305	Criminology	3
CHEM 4328	Inorganic Chemistry	3
CRIJ 3315	Rules of Criminal Evidence	3
CRIJ 4316 [WI (p. 396)]	Methods of Criminal Justice Research	3
Advanced CHEM elective		2
PHYS 1401	College Physics I	4
PHYS 1402	College Physics II	4
COMM 2302 [shared]	Business and Professional Speaking	
Total Hours		**49**

Interdisciplinary

Select one of the following:		4
GEOL 1403	Physical Geology	
GEOL 1404	Historical Geology	
BIOL 1406	Biology for Science Majors	
BIOL 1407	Biology for Science Majors II	
Supporting field (14 Hours Advanced) [1]		21
Advanced Electives		8
Advanced CHEM Electives		1
PHYS 1401	College Physics I	4
PHYS 1402	College Physics II	4
COMM 2302 [shared]	Business and Professional Speaking	
CHEM 4328	Inorganic Chemistry	3
CHEM 3124	Physical Chemistry II Laboratory	1
CHEM 3324	Physical Chemistry II	3
Total Hours		**49**

Pre-Health

BIOL 1406	Biology for Science Majors	4
BIOL 1407	Biology for Science Majors II	4
ECON 2301 [shared]	Principles of Macroeconomics	
PSYC 2301	General Psychology	3
or PSYC 2314	Life Span Growth & Development	
BIOL 3407	Microbiology	4
BIOL 3303	Genetics	3
BIOL 3103	Genetic Techniques	1
BIOL 3413	Molecular Biology	4
MATH 3450	Principles of Bio-Statistics	4
CHEM 4345	Medicinal Chemistry	3
CHEM 4374	Biochemistry I	3
CHEM 4375	Biochemistry II	3
Advanced CHEM Electives		5
PHYS 1401	College Physics I	4

PHYS 1402	College Physics II	4
COMM 2302 [shared]	Business and Professional Speaking	
Total Hours		**49**

Professional Chemistry

Advanced Electives		6
BIOL 1406	Biology for Science Majors	4
BIOL 1407	Biology for Science Majors II	4
CHEM 3324	Physical Chemistry II	3
CHEM 3124	Physical Chemistry II Laboratory	1
CHEM 4327	Structural Organic Analysis	3
CHEM 4328	Inorganic Chemistry	3
CHEM 4329	Polymers	3
CHEM 4374	Biochemistry I	3
CHEM 4378	Biochemistry Lab	3
CHEM 4086	Chemistry Problems: Undergraduate Research	1
Electives		4
Advanced Chemistry Electives		3
COMM 2302 [shared]	Business and Professional Speaking	
PHYS 2425	University Physics I	4
PHYS 2426	University Physics II	4
Total Hours		**49**

Bachelor of Science Degree in Physics

Physics is the science that investigates and tries to understand the basic laws of nature. In this pursuit, it deals with the entire range of natural phenomena from the smallest domain of sub-nuclear particles to the largest domain of distant objects in the universe. This breadth of interest is reflected in the type of work pursued by physicists. Some are interested in research on problems that are at the frontiers of knowledge. Some apply this newly acquired knowledge to make practical advances in fields like engineering. Still others use the knowledge of physics as a basis for careers in medicine, law, teaching or administration. The Tarleton physics program is one of the best-equipped undergraduate programs in Texas with state-of-the-art undergraduate research facilities including a 32" robotic telescope and 1 MV tandem particle accelerator. The physics program provides several different tracks including medical physics for students interested in medicine, dentistry, or medical physics and an astronomy track so that students can tailor the program to meet their educational goals. By adding two or three additional courses with a support area of mathematics or computer science, a student in the classical track can obtain a second bachelors degree in their support area. Through Tarleton's membership in the Texas Electronic Coalition for Physics students may take upper-level elective physics courses from professors across the Texas A&M System. Through Tarleton's membership in the Nuclear Power Institute, students may take nuclear engineering courses from Texas A&M's nuclear engineering department to prepare the student for entry into a nuclear engineering graduate program.

General Education Requirements (p. 396)		42
PHYS 2425 [shared]	University Physics I	
PHYS 2426 [shared]	University Physics II	
PHYS 3331	Mechanics I	3
PHYS 3332	Electromagnetic Field Theory	3
PHYS 3333 [WI (p. 396)]	Thermodynamics	3
PHYS 3334	Modern Physics I	3
PHYS 4330	Mathematical Methods for Physicists and Engineers	3
PHYS 4335	Quantum Physics	3
PHYS 4337 [WI (p. 396)]	Nuclear Physics and Techniques	3
PHYS 4340 [WI (p. 396)]	Advanced Physics Laboratory	3
PHYS 4161 [WI (p. 396)]	Physics Research Project	1
PHYS 4162 [WI (p. 396)]	Physics Research Seminar	1
MATH 2413 [shared]	Calculus I	
MATH 2414	Calculus II	4
MATH 3433	Calculus III	4
MATH 3306	Differential Equations	3
Advanced Physics Electives - 6 hrs		6
COSC Elective - 3 hrs		3
Electives		14
Support Field 18 hrs (at least 6 hrs Advanced) [1]		18
Total Hours		**120**

Chemistry Courses

CHEM 1106. Introductory Chemistry I. 1 Credit Hour (Lecture: 0 Hours, Lab: 1 Hour).

CHEM 1107. Introductory Chemistry II (lab). 1 Credit Hour (Lecture: 0 Hours, Lab: 1 Hour).

CHEM 1109. General Chemistry for Engineering Majors. 1 Credit Hour (Lecture: 0 Hours, Lab: 1 Hour).

CHEM 1111. College Chemistry I (Laboratory). 1 Credit Hour (Lecture: 0 Hours, Lab: 3 Hours).
Basic laboratory experiments supporting theoretical principles presented in CHEM 1311; introduction of the scientific method, experimental design, data collection and analysis, and preparation of laboratory reports. Prerequisite: MATH 1314 or coreq in either of MATH 1316, 2412, or 2413; Corequisite: CHEM 1311 Lab fee: $2.

CHEM 1112. College Chemistry II (Laboratory). 1 Credit Hour (Lecture: 0 Hours, Lab: 3 Hours).
Basic laboratory experiments supporting theoretical principles presented in CHEM 1312; introduction of the scientific method, experimental design, chemical instrumentation, data collection and analysis, and preparation of laboratory reports. Prerequisite: MATH 1314; CHEM 1111 or 1411; Coreq with CHEM 1312 Lab fee: $2.

CHEM 1302. Essential Elements of Chemistry. 3 Credit Hours (Lecture: 2 Hours, Lab: 3 Hours).
An introduction to the science of chemistry with a broad overview of the essential elements of chemistry and real-life applications. Enrollment in this course is restricted to Interdisciplinary Studies majors. Lab fee: $2.

CHEM 1306. Introductory Chemistry I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

CHEM 1307. Introductory Chemistry II (lecture). 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

CHEM 1309. General Chemistry for Engineering Majors. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

CHEM 1311. College Chemistry I (Lecture). 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Fundamental principles of chemistry for majors in the sciences, health sciences, and engineering; topics include measurements, fundamental properties of matter, states of matter, chemical reactions, chemical stoichiometry, periodicity of elemental properties, atomic structure, chemical bonding, molecular structure, solutions, properties of gases, and an introduction to thermodynamics and descriptive chemistry. Prerequisite: MATH 1314, or coreq in either of MATH 1316, 2412, or 2413.

CHEM 1312. College Chemistry II (Lecture). 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Chemical equilibrium; phase diagrams and spectrometry; acid-base concepts; thermodynamics; kinetics; electrochemistry; nuclear chemistry; an introduction to organic chemistry and descriptive inorganic chemistry. Prerequisite: CHEM 1311 or CHEM 1411.

CHEM 1406. Introductory Chemistry I. 4 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).

CHEM 1407. Fundamentals of Chemistry. 4 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
A beginning chemistry course for students in applied sciences who need only one semester of general chemistry. The course includes the structure, properties and changes in matter, quantitative relationships in reactions, solutions, equilibrium, pH, buffers and nuclear chemistry. Not recommended for science majors or pre-professional students in health related fields. Does not meet prerequisite for CHEM 1412 or 2423. Lab fee: $2.

CHEM 1409. College Chemistry for Engineers. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
Introduction to important concepts and principles of chemistry with an emphasis on areas considered most relevant in an engineering context. Registration will be restricted to engineering majors only. Engineering students many not receive credit for both CHEM 1409, CHEM 1311 and 1111, and CHEM 1411. Prerequisite: MATH 1314, or MATH 2412, or MATH 2413, or concurrent enrollment. Lab fee: $2.

CHEM 2123. Organic Chemistry I Laboratory. 1 Credit Hour (Lecture: 0 Hours, Lab: 4 Hours).
Laboratory portion associated with lecture CHEM 2323 Prerequisites: CHEM 1312 and 1112 or CHEM 1409(for Engineering Majors only) prerequisite or co-enrollment in CHEM 2323 Lab fee: $2.

CHEM 2125. Organic Chemistry II Laboratory. 1 Credit Hour (Lecture: 0 Hours, Lab: 4 Hours).
Laboratory portion associated with lecture CHEM 2325 Prerequisite: CHEM 2123; CHEM 2323; prerequisite or co-enrollment in CHEM 2325 Lab fee: $2.

CHEM 2323. Organic Chemistry I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The first semester of a year sequence in the chemistry of carbon compounds involving their synthesis, reaction mechanisms, nomenclature, physical and spectral properties. Includes compounds of theoretical, biological, agricultural, and industrial importance. Prerequisites: CHEM 1312 and 1112 or CHEM 1409(for Engineering Majors only).

CHEM 2325. Organic Chemistry II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A continuation of CHEM 2323. The laboratory includes an introduction to qualitative organic analysis. This course is a prerequisite to all organic chemistry courses at the junior or higher level. Prerequisite: CHEM 2323 (2423).

CHEM 2423. Organic Chemistry I. 4 Credit Hours (Lecture: 3 Hours, Lab: 4 Hours).
The first semester of a year sequence in the chemistry of carbon compounds involving their synthesis, reaction mechanisms, nomenclature, physical and spectral properties. Includes compounds of theoretical, biological, agricultural, and industrial importance. Prerequisites: CHEM 1312 and 1112 or CHEM 1409(for Engineering Majors only) Lab fee: $2.

CHEM 2425. Organic Chemistry II. 4 Credit Hours (Lecture: 3 Hours, Lab: 4 Hours).
A continuation of Organic Chemistry I (CHEM 2323 and CHEM 2123). The laboratory includes an introduction to qualitative organic analysis. This course is a prerequisite to all organic chemistry courses at the junior or higher level. Prerequisites: CHEM 2423 or both CHEM 2323 and CHEM 2123. Lab fee: $2.

CHEM 3124. Physical Chemistry II Laboratory. 1 Credit Hour (Lecture: 0 Hours, Lab: 4 Hours).
A laboratory introduction to the microscopic properties of nature, including an introduction to quantum mechanics and its applications to atomic and molecular spectroscopy. Prerequisite: CHEM 3423 Lab fee: $2.

CHEM 3314. Geochemistry. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A survey of the application of chemical principles to problems of geology. Topics include the origin and distribution of the elements in addition to exploring the behavior and distribution of various elements in igneous, metamorphic, and sedimentary rocks. Basic concepts of thermodynamics, solution chemistry, and isotope geochemistry will be discussed. Credit for both CHEM 3314 and GEOL 3314 will not be awarded. Prerequisites: CHEM 1312 and 1112. Lab fee: $2.

CHEM 3324. Physical Chemistry II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introduction to the microscopic properties of nature, including an introduction to quantum mechanics and its applications to atomic and molecular spectroscopy. Prerequisite: CHEM 3423.

CHEM 3407. Quantitative Analysis. 4 Credit Hours (Lecture: 2 Hours, Lab: 6 Hours).
A study of the experimental and theoretical principles concerning gravimetric and volumetric analysis. Topics include data treatment, equilibrium, precipitation, neutralization, oxidation, reduction, potentiometry, and introduction to spectroscopy. Prerequisite: A grade of C or better in 8 hours of freshman CHEM; junior classification or approval of department head. Lab fee: $10.

CHEM 3423. Physical Chemistry I. 4 Credit Hours (Lecture: 3 Hours, Lab: 4 Hours). [WI (p. 396)]
A study of chemical thermodynamics and its application to chemical equilibrium; the macroscopic properties of matter including real gases, solutions, and phase changes; chemical kinetics. Prerequisite: MATH 2414; PHYS 1402 or 2426 or approval of department head. Lab fee: $2.

CHEM 4086. Chemistry Problems: Undergraduate Research. 1-4 Credit Hours (Lecture: 0 Hours, Lab: 1-4 Hours).
Conducting an undergraduate research project in Chemistry. May be repeated for credit. A maximum of four hours may be applied toward degree requirements in chemistry. Prerequisite: Approval of department head.

CHEM 4160. Professional Lab Safety Techniques and Ethics in Chemistry. 1 Credit Hour (Lecture: 1 Hour, Lab: 1 Hour).
A capstone course intended for a chemistry major to take during their senior year. Lectures will cover the issues of ethics and lab safety in chemistry as well as the societal impacts of chemistry. The lab portion will be devoted to analyzing case studies, doing literature research, and giving professional style presentations. Prerequisite: Student must be within one year of graduation. Lab fee: $2.

CHEM 4327. Structural Organic Analysis. 3 Credit Hours (Lecture: 1 Hour, Lab: 6 Hours).
The identification of the principal classes of organic compounds. Prerequisites: CHEM 2425 or both CHEM 2325 and CHEM 2125. Lab fee: $2.

CHEM 4328. Inorganic Chemistry. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Discussion of the models of inorganic chemistry including atomic structure, chemical bonding, periodic properties, stereochemistry, reaction mechanisms, and coordination chemistry. Properties of specific elements and families are also presented Prerequisites: CHEM 2425 or both CHEM 2325 and CHEM 2125, and junior classification or approval of department head.

CHEM 4329. Polymers. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A basic study of polymer chemistry, with special emphasis on the effect of the structure of monomers upon the structure of the polymers, is presented. Prerequisites: CHEM 2425 or both CHEM 2325 and CHEM 2125.

CHEM 4345. Medicinal Chemistry. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An examination of the principles of drug action including receptor-effector theories and the effects of physico-chemical properties on biological activity. The principles of drug design, synthesis, and metabolism will be presented. Prerequisites: CHEM 2425 or CHEM 2325 and CHEM 2125, and BIOL 1407.

CHEM 4374. Biochemistry I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introduction to the basic principles of biological chemistry and to fundamental processes of plants, animals, and microorganisms. Students cannot receive credit for both BIOL 5374 and BIOL/CHEM 4374. Prerequisite: 8 hours of BIOL, and either (CHEM 2423 or both CHEM 2323 and 2123 with "C" or better).

CHEM 4375. Biochemistry II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A detailed survey of intermediary metabolism. The metabolism of carbohydrates, lipids, proteins and nucleic acids, and the regulation of metabolism are emphasized. Credit for both BIOL 4375 and CHEM 4375 will not be awarded. Prerequisite: BIOL/CHEM 4374, or approval of department head.

CHEM 4378. Biochemistry Lab. 3 Credit Hours (Lecture: 1 Hour, Lab: 6 Hours).
Principles and applications of basic methodology for the isolation, purification, characterization, and quantitative determination of biologically important compounds. Credit for both BIOL 4378 and CHEM 4378 will not be awarded. Prerequisite: BIOL 4374 or CHEM 4374 or concurrent enrollment, or approval of the department head. Lab fee: $2.

CHEM 4408. Instrumental Analysis. 4 Credit Hours (Lecture: 2 Hours, Lab: 6 Hours).
A study of the theory and use of instruments for chemical analysis. Techniques include absorption spectroscopy, nuclear magnetic resonance, atomic absorption, flame emission, mass spectroscopy, chromatography, potentiometry, and polarography. Prerequisites: CHEM 3407 and 1 semester of organic chemistry or approval of department head. Lab fee: $2.

CHEM 4477. Environmental Chemistry. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
This is an undergraduate course intended for any student who has completed College chemistry 1 and college chemistry II with an interest towards Environmental Science. This course includes both lecture and laboratory components. Lectures will cover topics which provide the understanding of interactions between chemical compounds whether anthropogenic or natural with the ecosystem. This course will provide qualitative and quantitative knowledge on effects of changes in water, soil, air and its effects on the environment. The lab portion includes bench scale and field scale experiments to put theory to practice. Water and soil samples will be collected from different sources and lab made samples will be used to detect and analyze the various types of pollutants and their mitigation methods will be discussed. Prerequisites: CHEM 1312 and 1112. Lab fee: $2.

Physics Courses

PHYS 1101. College Physics I. 1 Credit Hour (Lecture: 0 Hours, Lab: 1 Hour).

PHYS 1102. College Physics II. 1 Credit Hour (Lecture: 0 Hours, Lab: 1 Hour).

PHYS 1103. Stars and Galaxies. 1 Credit Hour (Lecture: 0 Hours, Lab: 1 Hour).

PHYS 1105. Elementary Physics I. 1 Credit Hour (Lecture: 0 Hours, Lab: 1 Hour).

PHYS 1301. College Physics I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

PHYS 1302. Essential Elements of Physics. 3 Credit Hours (Lecture: 2 Hours, Lab: 3 Hours).
This course introduces fundamental physics and astronomy concepts to students planning to become elementary and middle school teachers. Students are expected to design and conduct inquiry based experiments including the development of hypothesis, collection and analysis of data, and the use of appropriate laboratory equipment. Topics include motion, forces, energy, waves, light, electricity, magnetism, stellar and planetary evolution, and the atom. Enrollment in this course is restricted to Interdisciplinary Studies majors. Prerequisite: MATH 1314. Lab fee: $2.

PHYS 1303. Stars and Galaxies. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

PHYS 1305. Elementary Physics I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

PHYS 1321. Physics in Modern Medicine. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Basic physics principles (energy, waves, electromagnetism, Doppler shift, radioactivity, etc.) and their application to modern medicinal technology (endoscopes, ultrasound, lasers based treatments, medical imaging, therapeutic radiation, etc.). The course will partially fulfill a student's general science core requirement, but doesn't meet College or University Physics admission requirements for most professional programs (Medicine, Medical Physics, Dentistry, etc.) Corequisite: Any core math course. Prerequisite: Must be TSI ready in Math.

PHYS 1333. Physics For Future Presidents. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The course covers physics concepts and how these concepts impact problems of societal importance including energy security and sustainability, terrorism including radiological weapons (dirty bombs) and conventional attacks, nuclear weapons and nuclear proliferation, space technologies, physics in medicine (imaging and therapeutic radiation), and quantum physics (computing, information security, etc.). The course will provide a science and technology base needed by future leaders in government, companies, and organizations who must adapt to an ever-changing world where technologies play a critical role.

PHYS 1401. College Physics I. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
An introduction to mechanics, heat, and wave motion. This course is a trigonometry-based physics course. A student cannot get credit for PHYS 1401 if credit has been previously received for PHYS 2425. Prerequisite: MATH 1316, MATH 2412, MATH 2413, MATH 1352 or concurrent enrollment. Lab fee: $2.

PHYS 1402. College Physics II. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
An introduction to electricity and magnetism, light, and modern physics. This is a trigonometry-based physics course. A student cannot get credit for PHYS 1402 if credit has previously been received for PHYS 2426. Prerequisite: PHYS 1401 Lab fee: $2.

PHYS 1403. Stars and Galaxies. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
A laboratory science course of study in topics of astronomy and astrophysics, including the sun and its source of energy, stellar formation and evolution, black holes, galaxies, cosmology, and the creation and evolution of the universe. Lab fee: $2.

PHYS 1404. Solar System. 4 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).

PHYS 1405. Elementary Physics I. 4 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).

PHYS 1407. Elementary Physics II. 4 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).

PHYS 1410. Great Ideas of Physics. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
Great Ideas of Physics is a laboratory science course designed to introduce the student to the concepts of physics in an elementary mathematical setting, and to discuss their significance to science, technology, and society. Topics will be drawn from both classical and contemporary physics. This course cannot be used for credit toward a degree in physics or mathematics. Lab fee: $2.

PHYS 1411. Introductory Astronomy I. 4 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
A laboratory science course of study in the topics of astronomy and astrophysics, including the history of astronomy, Kepler's laws, gravitation, formation of the solar system, asteroids, comets, meteors, a detailed survey of the planets and their evolution, and discussion on the possibility of extraterrestial life in the universe. Lab fee: $2.

PHYS 1415. Physical Science I. 4 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).

PHYS 1417. Physical Science II. 4 Credit Hours (Lecture: 3 Hours, Lab: 1 Hour).

PHYS 2125. University Physics I. 1 Credit Hour (Lecture: 0 Hours, Lab: 1 Hour).

PHYS 2126. University Physics II. 1 Credit Hour (Lecture: 0 Hours, Lab: 1 Hour).

PHYS 2325. University Physics I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

PHYS 2326. University Physics II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

PHYS 2425. University Physics I. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
This is an introduction to mechanics, heat, and wave motion. This is a calculus-based physics course. Prerequisite: MATH 2413 or concurrent registration. Lab fee: $2.

PHYS 2426. University Physics II. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
This is an introduction to electricity, magnetism, optics, and modern physics. Prerequisites: PHYS 2425 and MATH 2414 or concurrent registration. Lab fee: $2.

PHYS 3331. Mechanics I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A mathematical treatment of the fundamentals of classical mechanics. Topics include particle dynamics in one, two, and three dimensions; conservation laws; dynamics of a system of particles; motion of rigid bodies; central force problems; accelerating coordinate systems; gravitation; Lagrange's equations and Hamilton's equations. Prerequisites: PHYS 2426; MATH 3306 and MATH 3433 or concurrent registrations.

PHYS 3332. Electromagnetic Field Theory. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Electrostatics; Laplace's equation; the theory of dielectrics; magnetostatic fields; electromagnetic induction; magnetic fields of currents; Maxwell's equations. Prerequisites: PHYS 2426, MATH 3306 and MATH 3433, or concurrent registrations.

PHYS 3333. Thermodynamics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
Concept of temperature, equations of state; the first and the second law of thermodynamics; entropy; change of phase; the thermodynamics functions. Prerequisite: PHYS 2426 (Prerequisite); MATH 3433 (Co-requisite).

PHYS 3334. Modern Physics I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Foundations of the atomic theory of matter; kinetic theory; elementary particles; radiations; atomic model; atomic structure; atomic spectra and energy levels; quantum theory of radiation; x-rays; special theory of relativity. Prerequisite: PHYS 2426 (Prerequisite); MATH 3433 or MATH 3306 (Corequisite).

PHYS 3350. Medical Physics I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The course will provide an introduction to the physics of human physiological processes as well as the physics used in the design of medical diagnostic tools and techniques. Prerequisite: PHYS 2426 or consent of the instructor.

PHYS 4086. Special Problems. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 1-3 Hours).
This course is designed to develop the theoretical or experimental capabilities, or both, of individual senior physics majors. Prerequisites: Senior classification and approval of department head.

PHYS 4161. Physics Research Project. 1 Credit Hour (Lecture: 1 Hour, Lab: 2 Hours). [WI (p. 396)]
Literature survey and preparation for, and initiation of, a research project agreed to between the student and a faculty advisor, to be completed and reported on in the Research Seminar course. Prerequisite: PHYS 3334.

PHYS 4162. Physics Research Seminar. 1 Credit Hour (Lecture: 1 Hour, Lab: 0 Hours). [WI (p. 396)]
An experimental or theoretical project will be continued by the student and the results reported in a seminar. Students who have not yet taken the ETS Physics field test are required to do so while enrolled in Seminar. Prerequisite: PHYS 4161.

PHYS 4303. Astronomy and Astrophysics. 3 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
A laboratory science course of study in the topics of astronomy and astrophysics, including Planetary Astronomy, Stellar Astrophysics, Galactic Astronomy, Cosmology and Astrobiology. Prerequisite: MATH 2413, PHYS 2425. Lab fee: $2.

PHYS 4330. Mathematical Methods for Physicists and Engineers. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Mathematical techniques from the following areas: infinite series; integral transforming; applications of complex variables; vectors, matrices, and tensors; special functions; partial differential equations; Green's functions; perturbation theory; integral equations; calculus of variations; and groups and group representatives. Credit for both ENPH 4330 and PHYS 4330 will not be awarded. Prerequisite: MATH 3306, 3433.

PHYS 4332. Optics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Huygen's principle applied to geometric optics; interference; diffraction; polarization; crystal optics; electromagnetic theory of light; interaction of light with matter. Prerequisites: PHYS 2442 and MATH 3306.

PHYS 4334. Modern Physics II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The constitution of the atomic nucleus; natural radioactivity; artificially induced nuclear transmutations; alpha, beta, and gamma decay; nuclear reactions; nuclear structure and nuclear forces; nuclear fission; neutron physics. Prerequisites: PHYS 3334 and MATH 3306 or concurrent registration.

PHYS 4335. Quantum Physics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The Schroedinger equation; one dimensional systems; the Heisenberg uncertainty principle; magnetic moments and angular momentum; two and three dimensional systems; approximation methods; scattering theory. Prerequisite: PHYS 3334 (Prerequisite); MATH 3306 or MATH 3433 (Co-requisite).

PHYS 4336. Solid State Physics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The basic ideas of physics are applied to the understanding of the properties of crystalline materials to include the definition of such materials, electrical and thermal conductivity, heat capacity, crystalline binding, the nature of metals, insulators, and semiconductors, dielectric properties, and magnetic properties. Credit for both ELEN 4336 and PHYS 4336 will not be awarded. Prerequisite: PHYS 3334; MATH 3306 or concurrent registration.

PHYS 4337. Nuclear Physics and Techniques. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
The study of nuclear phenomena and properties including mass, stability, magnetic moment, radioactive decay processes and angular momentum. The use of nuclear techniques as applied to other scientific fields including electronics and medicine. Prerequisite: PHYS 3334.

PHYS 4340. Advanced Physics Laboratory. 3 Credit Hours (Lecture: 1 Hour, Lab: 4 Hours). [WI (p. 396)]
A laboratory course focusing on advanced techniques and experiments drawn from the full range of physics classes. The student will understand the role of experimental design, advanced data analysis and reduction, error analysis, and the use of computers while investigating physical phenomena. Prerequisite: Corequisite: PHYS 3334. Lab fee: $30.

PHYS 4350. Medical Physics II. 3 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
The course covers the physics of ionizing radiation and its application in areas of medical physics, radiation safety, and manufacturing. Prerequisite: PHYS 3334 or consent of instructor. Lab fee: $8.

Department of Mathematics

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The Department of Mathematics offers programs of study leading to the Bachelor of Science in Mathematics or Statistics. A minor in Mathematics or Statistics is another option available to students. In addition, the Department of Mathematics offers a Master of Science in Mathematics or Data Science (contact our Graduate Mathematics Coordinator at gradmath@tarleton.edu for more information on graduate programs).

The minor in Mathematics requires a minimum of 18 hours of MATH credit, which must include MATH 2414 Calculus II and at least 6 advanced MATH hours. The Minor in Statistics requires a minimum of 18 hours of STAT credit, which must include STAT 4300 and STAT 4301.

In addition, the Department of Mathematics delivers the MATH courses for those students pursuing the B.S. in Secondary Education (through the College of Education) with an emphasis in teacher certification for Grades 7-12 Mathematics. An option to receive a double major with the B.S. in Secondary Education and the B.S. in Mathematics is available through the concentration below called "Mathematics for Teaching." The Department of Mathematics also provides the mathematics content for students pursuing certification for Grades 4-8 Mathematics.

Finally, the Department of Mathematics upholds a Mathematics Placement Policy to help ensure that students are placed into the appropriate mathematics courses. For more information, please see your academic advisor.

Bachelor of Science Degree in Mathematics

The Bachelor of Science in Mathematics provides a program of study that prepares students who are seeking employment in business & industry or who plan to pursue graduate study in mathematics.

Below are the program requirements for the **B.S. in Mathematics**. Students complete the General Education Core Requirements along with a set list of courses that are required for the degree for 78 credit hours. In addition, each student chooses a specialized concentration with 42 credit hours to complete the 120-hour program.

Academic advisors in the University College help students officially declare the major and concentration, along with helping students select courses each semester based on prerequisites and course rotations. For help in connecting with an academic advisor, please see the following website: https://www.tarleton.edu/advising/advisors/ (https://www.tarleton.edu/advising/advisors/)

Students are encouraged to visit with faculty in the Department of Mathematics if they need assistance choosing a concentration. Faculty mentors can help students explore the types of career opportunities that are available to students for each concentration. Please reach out to the department office in the Mathematics Building, Room 142, if you need help connecting with a faculty mentor.

General Education Requirements (p. 396)		42
Placement for Calculus 1 (MATH 2413)		
MATH 2413 [shared]	Calculus I	
MATH 2414	Calculus II	4
MATH 3306	Differential Equations	3
MATH 3318	Linear Algebra	3
MATH 3311	Probability and Statistics I	3
MATH 3312	Probability & Statistics II	3
MATH 3320	Foundations of Mathematics	3
MATH 3433	Calculus III	4
MATH 4309 [WI (p. 396)]	Advanced Analysis	3
MATH 4332 [WI (p. 396)]	Abstract Algebra	3
COSC 1436	Programming Fundamentals I	4
COSC 3344	Computer Applications in Analysis	3
PHYS 2425 [shared]	University Physics I	
ENGL 1301 [shared] [WI (p. 396)]	Composition I	
ENGL 1302 [shared] [WI (p. 396)]	Composition II	
GOVT 2305 [shared]	Federal Government (Federal Constitution and Topics)	
GOVT 2306 [shared]	Texas Government (Texas Constitution and Topics)	
Total Hours		**78**

Biomathematics

BIOL 1406 [shared]	Biology for Science Majors	
BIOL 1407	Biology for Science Majors II	4
BIOL 3303	Genetics	3
BIOL 3103	Genetic Techniques (Students will need to take BIOL 3103 after or concurrently with BIOL 3303)	1
BIOL 3407	Microbiology	4
BIOL 3353	Ecology and Evolution	3
CHEM 1311	College Chemistry I (Lecture)	3
CHEM 1111	College Chemistry I (Laboratory)	1
ENGL 3309 [WI (p. 396)]	Professional Writing	3

MATH 3360	Numerical Analysis [2]	3
MATH 4320	Mathematical Modeling	3
Select two of the following:		8
BIOL 3413	Molecular Biology	
BIOL 3485	Immunology	
BIOL 4401	Ecology	
BIOL 4445	Parasitology	
Select two of the following:		6
MATH 3301	Number Theory	
MATH 3364	Data Analysis I	
MATH 4306	Partial Differential Equations	
MATH 4088	Undergraduate Research Project	
MATH 4390	Math Topics	
Total Hours		**42**

Data Analysis

MATH 3310	Discrete Mathematics	3
MATH 3364	Data Analysis I	3
Select three of the following:		9
MATH 3301	Number Theory	
MATH 3360	Numerical Analysis	
MATH 4306	Partial Differential Equations	
MATH 4320	Mathematical Modeling	
MATH 4088	Undergraduate Research Project	
MATH 4390	Math Topics	
COSC 2441	Data Structures and Algorithms	4
COSC 3360	Python Programming for Data Science	3
COSC 4460	Machine Learning	4
STAT 4464	Data Analysis II	4
Prescribed Electives (Data Science Support Field) [1]		9
ENGR 2303 [shared]	Engineering Economy	
ENGL 3309 [WI (p. 396)]	Professional Writing	3
COMM 2302 [shared]	Business and Professional Speaking	
Total Hours		**42**

[1] Courses for the Data Science supporting field are to be chosen from an academic area in which data science is applicable. Supporting field must be developed in consultation with an academic advisor and have department head approval.

Environmental Mathematics

CHEM 1311 [shared]	College Chemistry I (Lecture)	
CHEM 1111 [shared]	College Chemistry I (Laboratory)	
CHEM 1312	College Chemistry II (Lecture)	3
CHEM 1112	College Chemistry II (Laboratory)	1
ENVE 2251	Fundamentals of GIS for Engineers	2
ENVE 2310	Introduction to Environmental Engineering	3
ENVE 3300	Fluid Mechanics	3
ENVE 3301	Environmental Systems Modeling	3
ENVE 3310 [WI (p. 396)]	Engineering Hydrology	3
ENVE 4310 [WI (p. 396)]	Water Resources Engineering	3
Select three from the following:		9
ENVE 2311	Soil Mechanics	
ENVE 3450	Environmental Biotechnology	
ENVE 3333	Groundwater Contamination and Remediation	
ENVE 4350	Solid and Hazardous Waste Management	
MATH 3360	Numerical Analysis	3
MATH 4320	Mathematical Modeling	3
Select two from the following:		6
MATH 3364	Data Analysis I	
MATH 4306	Partial Differential Equations	
MATH 4088	Undergraduate Research Project	
MATH 4390	Math Topics	
Total Hours		**42**

Financial Analysis

ACCT 2301	Principles of Accounting I-Financial	3
ACCT 2302	Principles of Accounting II-Managerial	3
ACCT 3303	Intermediate Accounting I	3
COMM 2302 [shared]	Business and Professional Speaking	
ECON 2301 [shared]	Principles of Macroeconomics	
ECON 2302	Principles of Microeconomics	3
ECON 4311 [WI (p. 396)]	Econometrics and Forecasting	3
FINC 3301	Principles of Financial Management	3
ECON 3304	Environmental Economics	3
FINC 4304	Investments I	3
FINC 4307	Investments II	3
FINC 4300	Advanced Financial Management	3
Select four of the following:		12
MATH 3301	Number Theory	
MATH 3360	Numerical Analysis	
MATH 3364	Data Analysis I	
MATH 4306	Partial Differential Equations	
MATH 4320	Mathematical Modeling	
MATH 4088	Undergraduate Research Project	
MATH 4390	Math Topics	
Total Hours		**42**

General

Supporting Field (12 Hours Advanced) [1]		24
Electives		6
Select four of the following:		12
MATH 3301	Number Theory	
MATH 3360	Numerical Analysis	
MATH 3364	Data Analysis I	
MATH 4306	Partial Differential Equations	
MATH 4320	Mathematical Modeling	
MATH 4088	Undergraduate Research Project	
MATH 4390	Math Topics	
Total Hours		**42**

Mathematics for Teaching

This concentration is for students currently enrolled in a Secondary Mathematics Education program and wanting to pursue a second major.

Supporting Field in Education (12 hours adv)		24
Electives		6
MATH 3301	Number Theory	3
MATH 4302	College Geometry	3
MATH 4304	Survey of Mathematical Ideas I	3
MATH 4308	Survey of Mathematical Ideas II	3
Total Hours		**42**

Pre-Actuarial

ACCT 2301	Principles of Accounting I-Financial	3
ACCT 2302	Principles of Accounting II-Managerial	3
COMM 2302 [shared]	Business and Professional Speaking	
ECON 2301 [shared]	Principles of Macroeconomics	
ECON 2302	Principles of Microeconomics	3
ECON 3301	Intermediate Macroeconomics	3
ECON 3302	Intermediate Microeconomics	3
ENGL 3309 [WI (p. 396)]	Professional Writing	3
FINC 3301	Principles of Financial Management	3
FINC 4304	Investments I	3
ECON 4311 [WI (p. 396)]	Econometrics and Forecasting	3
FINC 4308	Principles of Insurance and Risk Management	3
Select four of the following: [3]		12
MATH 3301	Number Theory	
MATH 3360	Numerical Analysis	
MATH 3364	Data Analysis I	
MATH 4306	Partial Differential Equations	
MATH 4320	Mathematical Modeling	

MATH 4088	Undergraduate Research Project	
MATH 4390	Math Topics	
Total Hours		**42**

Pre-Law

ACCT 2301	Principles of Accounting I-Financial	3
COMM 1311 [shared]	Introduction to Speech Communication	
COMM 1315	Public Speaking	3
COMM 2302	Business and Professional Speaking	3
COMM 3303	Debate	3
Sophomore ENGL literature [Shared]		
ENGL 3309 [WI (p. 396)]	Professional Writing	3
ENGL 3310	Editing	3
PHIL 2303	Introduction to Logic	3
PHIL 3301	Ethics in the Professions	3
PSYC 2301 [shared]	General Psychology	
Electives		6
Select four of the following:		12
MATH 3301	Number Theory	
MATH 3360	Numerical Analysis	
MATH 3364	Data Analysis I	
MATH 4306	Partial Differential Equations	
MATH 4320	Mathematical Modeling	
MATH 4088	Undergraduate Research Project	
MATH 4390	Math Topics	
Total Hours		**42**

Pre-Medical/Pre-Dental

BIOL 1406	Biology for Science Majors	4
BIOL 1407	Biology for Science Majors II	4
BIOL 3407	Microbiology	4
BIOL 4374	Biochemistry I	3
CHEM 1311	College Chemistry I (Lecture)	3
CHEM 1111	College Chemistry I (Laboratory)	1
CHEM 1312	College Chemistry II (Lecture)	3
CHEM 1112	College Chemistry II (Laboratory)	1
CHEM 2323	Organic Chemistry I	3
CHEM 2123	Organic Chemistry I Laboratory	1
CHEM 2325	Organic Chemistry II	3
CHEM 2125	Organic Chemistry II Laboratory	1
COMM 2302 [shared]	Business and Professional Speaking	
PHIL 3301 [shared]	Ethics in the Professions	
PHYS 2426 [shared]	University Physics II	
Select 11 hours from the following:		11
MATH 3301	Number Theory	
MATH 3360	Numerical Analysis	
MATH 3364	Data Analysis I	
MATH 4306	Partial Differential Equations	
MATH 4320	Mathematical Modeling	
MATH 4088	Undergraduate Research Project	
MATH 4390	Math Topics	
Total Hours		**42**

Technical Writing

Sophomore Level English [shared]		
BIOL 1406 [shared]	Biology for Science Majors	
CHEM 1311	College Chemistry I (Lecture)	3
CHEM 1111	College Chemistry I (Laboratory)	1
COMM 2302 [shared]	Business and Professional Speaking	
ENGL 3309 [WI (p. 396)]	Professional Writing	3
ENGL 3310	Editing	3
Advanced ENGL electives		6
ENGL 3312	Professional Writing and Visual Design	3
Lab Science elective		4
Electives		7

Select four of the following:		12
MATH 3301	Number Theory	
MATH 3360	Numerical Analysis	
MATH 3364	Data Analysis I	
MATH 4306	Partial Differential Equations	
MATH 4320	Mathematical Modeling	
MATH 4088	Undergraduate Research Project	
MATH 4390	Math Topics	
Total Hours		**42**

Bachelor of Science Degree in Statistics

The Bachelor of Science in Statistics provides a program of study that prepares students who are seeking employment in business & industry or who plan to pursue graduate study. Students completing the Bachelor of Science in Statistics may choose to continue their studies with the Master of Science in Mathematics or Data Science.

Below are the program requirements for the **B.S. in Statistics**. Students complete the General Education Core Requirements along with a set list of courses that are required for the degree for 84 credit hours. In addition, each student chooses a 24-hour support field within a 36-hour concentration to complete the 120-hour program.

Academic advisors in the University College help students officially declare the major and support field, along with helping students select courses each semester based on prerequisites and course rotations. For help in connecting with an academic advisor, please see the following website: https://www.tarleton.edu/advising/advisors/

Students are encouraged to visit with faculty in the Department of Mathematics if they need assistance choosing a support field. Faculty mentors can help students explore the types of career opportunities that are available to students. Please reach out to the department office in the Mathematics Building, Room 142, if you need help connecting with a faculty mentor.

General Education Requirements (p. 396)		42
STAT 2300	Introduction to Applied Statistics Using Technology	3
STAT 2301	Intermediate Statistical Methods using Technology	3
STAT 3364	Data Analysis I	3
STAT 3311	Probability & Statistics I	3
STAT 3312	Probability & Statistics II	3
STAT 4300	Linear Models	3
STAT 4301 [WI (p. 396)]	Design of Experiments	3
Placement for Calculus 1 (MATH 2413)		
MATH 2413 [shared]	Calculus I	
MATH 2414	Calculus II	4
MATH 3318	Linear Algebra	3
MATH 3320	Foundations of Mathematics	3
MATH 3433	Calculus III	4
MATH 4309 [WI (p. 396)]	Advanced Analysis	3
COSC 1436	Programming Fundamentals I	4
Total Hours		**84**

Data Science

STAT 4464	Data Analysis II	4
COSC 2441	Data Structures and Algorithms	4
COSC 3344	Computer Applications in Analysis	3
COSC 3360	Python Programming for Data Science	3
COSC 4301	Database Theory and Practice	3
COSC 4460	Machine Learning	4
Prescribed electives - Select 9 hours from:		9
COSC 2345	Introduction to Artificial Intelligence	
COSC 3341	Applied Cryptography	
COSC 3364	Principles of Cybersecurity	
COSC 4345	Reinforcement Learning	
COSC 4361	Deep Neural Networks	
General Electives		6
Total Hours		**36**

General

Support Field (12 hours advanced) [1]		24
Prescribed Electives: Select 12 hours from:		12
STAT 4302	Nonparametric Statistics	
STAT 4310	Bayesian Analysis	
STAT 4320	Time Series Analysis	
STAT 4086	Statistics Problems	
STAT 4384	Internship	
STAT 4098	Undergraduate Research Project	

STAT 4390	Statistics Topics	
Total Hours		**36**

Professors

- Crawford, J.
- Emmert, K.
- Faulkenberry, E.
- Garza, J.
- Mewomo, O.
- Riggs, B.
- Smith, K. (Retired)
- White, P.
- Wyatt, B.

Associate Professors

- Cook, S.

Assistant Professors

- Dougherty, A.
- Herrera-Diestra, J.
- Rodriguez, C.
- Schuerger, H.
- Mauntel, M.
- Shi, Y.
- Yu, Y.

Assistant Professor - Professional Track

- Reyna, R.

Visiting Assistant Professor

- Darwin, T.

Senior Instructor

- Groseclose, J.
- Summer, N.

Instructors

- Bendewald, B.
- Casey, D.
- Chowdhury, M.
- Helfrich, J.
- Holland, C.
- Lee, M.
- McCain, J.
- Osei, D.
- Peters, M.
- Robinett, J.
- Rothardt, C.
- Salinas, I.
- Seaman, C.
- Shahnewaz, T.
- Sims, K.
- Thorpe, R.
- Watkins, C.

Visiting Instructors

- Almon, S.
- Etter, M.
- Erwin, S.
- Kodua, A.
- Kyei, R.
- Morrison, J.
- Neighbors, D.

Mathematics Courses

MATH 0001. NCBO Math. 0 Credit Hours (Lecture: 0 Hours, Lab: 0 Hours).

MATH 1314. College Algebra. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
In-depth study and applications of polynomial, rational, radical, exponential and logarithmic functions, and systems of equations using matrices.

MATH 1316. Plane Trigonometry. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
In-depth study and applications of trigonometry including definitions, identities, inverse functions, solutions of equations, graphing, and solving triangles. Additional topics such as vectors, polar coordinates, and parametric equations may be included. Prerequisite: MATH 1314 or in accordance with the Department of Mathematics initial enrollment placement policy.

MATH 1324. Math for Business & Social Sciences I (Finite Mathematics). 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The application of common algebraic functions, including polynomial, exponential, logarithmic, and rational, to problems in business, economics, and the social sciences. The applications include mathematics of finance, including simple and compound interest and annuities; systems of linear equations; matrices; linear programming; and probability, including expected value. Prerequisites: Enrollment in the course will be in accordance with the Mathematics Placement and Continuing Enrollment Rules.

MATH 1325. Math for Business & Social Sciences II (Business Calculus). 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is the basic study of limits and continuity, differentiation, optimization and graphing, and integration of elementary functions, with emphasis on applications in business, economics, and social sciences. This course is not a substitute for MATH 2413 (Calculus I). This course cannot be counted on a degree program for a mathematics major. Prerequisite: MATH 1314 or MATH 1324.

MATH 1332. Contemporary Mathematics I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Elementary mathematical applications to problems of finance, probability, statistics, and geometry, and the development of reasoning skills. This course cannot be counted on a degree program for a mathematics major. Prerequisites: Enrollment in this course will be in accordance with the Mathematics Placement and Continuing Enrollment Rules.

MATH 1342. Elementary Statistical Methods. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Collection, analysis, presentation and interpretation of data, and probability. Analysis includes descriptive statistics, correlation and regression, confidence intervals and hypothesis testing. Technology will be incorporated where appropriate. Prerequisites: Enrollment in this course will be in accordance with the Mathematics Placement and Continuing Enrollment Rules.

MATH 1352. Math Applications for Construction Sci. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Concepts from algebra, geometry, measurement, and trigonometry that provide the foundation for the quantitative skills and numerical proficiencies needed for construction science. Enrollment in this course is restricted to students majoring in Construction Science.

MATH 2412. Precalculus Math. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
Continuation of the study of algebra with the addition of trigonometry and other topics for calculus readiness. Prerequisites: MATH 1314 or in accordance with the Department of Mathematics initial enrollment placement policy. Lab fee: $2.

MATH 2413. Calculus I. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
Limits and continuity; the Fundamental Theorem of Calculus; definition of the derivative of a function and techniques of differentiation; applications of the derivative to maximizing or minimizing a function; the chain rule, mean value theorem, and rate of change problems; curve sketching; definite and indefinite integration of algebraic, trigonometric, and transcendental functions, with an application to calculation of areas. Use of computer technology and laboratory assignments will be required in this course. Prerequisite: MATH 1316 or MATH 2412. Lab fee: $2.

MATH 2414. Calculus II. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
Applications of integration, integration techniques, improper integrals, sequences and infinite series, power series, parametric and polar curves. Use of computer technology and laboratory assignments will be required in this course. Prerequisite: MATH 2413. Lab fee: $5.

MATH 3301. Number Theory. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The study of congruence relations, rational integers, diophantine equations, quadratic reciprocity law, linear forms, integral domains, and related topics. Prerequisite: 6 hours of Mathematics including MATH 2413.

MATH 3302. Principles of Geometry. 3 Credit Hours (Lecture: 2 Hours, Lab: 3 Hours).
Introduction to Euclidean geometry. Topics will include an introduction to logic, properties of parallel lines, triangles, quadrilaterals, and measurement. Similarity and proportionality will also be addressed. Credit for both MATH 3302 and MATH 4302 will not be awarded. Prerequisite: MATH 2413. Lab fee: $2.

MATH 3303. Concepts of Elementary Mathematics I. 3 Credit Hours (Lecture: 2 Hours, Lab: 3 Hours).
This course is designed to develop and extend the mathematical content knowledge of prospective elementary and middle school teachers. Topics will include problem solving, sets, functions, mathematical reasoning, numerical fluency, operations and properties of whole numbers, integers, rational numbers, and real numbers. Prerequisites: minimum of 45 hours complete and a C or better in MATH 1314 Lab fee: $2.

MATH 3305. Concepts of Elementary Mathematics II. 3 Credit Hours (Lecture: 2 Hours, Lab: 3 Hours).
This course is designed to develop and extend the mathematical content knowledge of prospective elementary and middle school teachers. Topics will include geometry, measurement, probability, data collection, and statistics. Prerequisite: C or better in MATH 3303 Lab fee: $2.

MATH 3306. Differential Equations. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Solutions and applications of homogeneous and nonhomogeneous ordinary differential equations, including first-order equations and higher-order linear equations. Qualitative properties of solutions are investigated, as well as exact methods for solving differential equations and initial value problems including series, Laplace transform, separation of variables, variation of parameters, and undetermined coefficients. Prerequisite: MATH 2414.

MATH 3310. Discrete Mathematics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduces students to the techniques and tools of reasoning, decision making and combinational problem solving. Topics include sets and logic, combinations, probability, relations, functions and graphs, symbolic logic, finite state and Turing machines. Prerequisite: MATH 2413 or concurent enrollment.

MATH 3311. Probability and Statistics I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Topics will include probability axioms and properties; conditional probability and independence; counting techniques; and discrete, continuous, univariate, and multivariate random variables. Prerequisite: MATH 2414.

MATH 3312. Probability & Statistics II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Topics will include normal distributions; sampling distributions; the central limit theorem; descriptive statistics; and the theory of statistical estimation and testing, with applications to proportions, means, contingency tables, univariate linear regression, and analysis of variance. Prerequisite: MATH 3311.

MATH 3318. Linear Algebra. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduces and provides models for application of the concepts of vector algebra. Topics include finite dimensional vector spaces and their geometric significance; representing and solving systems of linear equations using multiple methods, including Gaussian elimination and matrix inversion; matrices; determinants; linear transformations; eigenvalues and eigenvectors; inner products; orthogonality; and applications in science and engineering. Prerequisite: MATH 2414.

MATH 3320. Foundations of Mathematics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course introduces students to concepts and forms of proof found in advanced mathematics courses. Topics include logic, set theory, mathematical induction, relations, functions, and cardinality. Prerequisite: MATH 2413.

MATH 3360. Numerical Analysis. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introduction to numerical analysis. Topics will be selected from error analysis, solving algebraic equations, interpolation, numerical differentiation and integration, methods for solving systems of equations, approximation theory, and initial value problems of ordinary differential equations. Prerequisites: MATH 2414 and 3 hours of COSC.

MATH 3364. Data Analysis I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Mathematical foundations of data analysis techniques. Applications of Lagrangians to support vector machines, gradient descent methods for artificial neural networks, and conditional probabilities for Bayesian classifiers. Additional topics will be selected from: the class imbalance problem, cost sensitive learning, bootstrapping, kernel methods, impurity measures, distance metrics, topological data analysis, anomaly detection and convergence theorems for various methods. Prerequisites: MATH 2318, MATH 3433, COSC 1436 and one course from (MATH 1342, STAT 2301, STAT 3312, or MATH 3450).

MATH 3433. Calculus III. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
The calculus of two dimensional vectors, parametric equations, cylindrical and spherical coordinates, multivariable differential calculus, directional derivatives and their applications, multiple integration, vector analysis, line and surface integrals, Green's Theorem, Stokes's Theorem. Use of computer technology and laboratory assignments will be required in this course. Prerequisite: MATH 2414. Lab fee: $5.

MATH 3450. Principles of Bio-Statistics. 4 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
An introduction to statistical methods that are applied in biology and agriculture. Use of technology and hands-on laboratory assignments will be required in this course. This course cannot be counted on a degree program for a mathematics major. Credit cannot be awarded for both MATH 1342 and 3450. Prerequisite: MATH 1314 or MATH 1316 or MATH 2412 or MATH 2413. Lab fee: $2.

MATH 4086. Mathematics Problems. 1-4 Credit Hours (Lecture: 0 Hours, Lab: 1-4 Hours).
Special problems in mathematics. Not covered by any course in the curriculum. Work may be either theory or laboratory. May be repeated with approval of the department head for additional credit. Prerequisite: Approval of department head.

MATH 4088. Undergraduate Research Project. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 0 Hours).
Methods of research in the mathematical sciences or in mathematics education through a research project directed by a departmental faculty member. The student is required to prepare a final report and presentation. No credit is earned until the student has enrolled in at least 3 credit hours and the final report and presentation are certified as completed by the faculty member directing the project, at which time the student will receive 3 credit hours. Prerequisites: Mathematics major, junior standing, 24 semester hours MATH and department head approval.

MATH 4185. Career Pathways Seminar in Mathematics and Statistics. 1 Credit Hour (Lecture: 1 Hour, Lab: 0 Hours).
In this course, students will have the opportunity to explore career opportunities in mathematics and statistics. The course will focus on resume building, mock interviews and job searches. Prerequisite: MATH or STAT major.

MATH 4302. College Geometry. 3 Credit Hours (Lecture: 2 Hours, Lab: 3 Hours).
Topics will include logic, properties of circles and transformations, projective and non-Euclidean geometry. Technology will be included when appropriate. Credit for both MATH 3302 and MATH 4302 will not be awarded. Prerequisite: MATH 2413 Lab fee: $2.

MATH 4304. Survey of Mathematical Ideas I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to bring together and supplement the technical material of other mathematics courses to communicate mathematics effectively. Topics in number & operations, number theory, algebra, statistics, and probability will be explored. Technology will be used where appropriate. Prerequisites: MATH 2413 and (MATH 3302 or MATH 4302).

MATH 4305. Concepts of Elementary Mathematics III. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to develop and extend the mathematical content knowledge of prospective elementary and middle school teachers. Topics will include ratios, proportionality, number theory, and the development of algebraic reasoning through the use of patterns, relations, and functions, with an emphasis on multiple representations (numerical, graphical, verbal, and/or symbolic). Technology will be integrated into the curriculum where appropriate. Prerequisites: Junior Standing and a C or better in MATH 3305.

MATH 4306. Partial Differential Equations. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introduction to theory and applications of partial differential equations. Topics for study may include separation of variables, heat equation, Laplace's equation, wave equation, Fourier series, and Sturm-Liouville eigenvalue problems. Prerequisite: MATH 3306.

MATH 4308. Survey of Mathematical Ideas II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course is designed to bring together and supplement the technical material of other mathematics courses to communicate mathematics effectively. Topics in statistics, probability, trigonometry, precalculus, and calculus will be explored. Technology will be used where appropriate. Prerequisites: MATH 4304 and (MATH 1342 OR MATH 3311).

MATH 4309. Advanced Analysis. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
A study of the theory of the calculus of functions of a single variable. Topics include the topology of the real line, functions, sequences and their limits, continuity, differentiation, and analysis of variance. Prerequisites: MATH 2414 and MATH 3320.

MATH 4311. Probability and Statistics II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Topics will include normal distributions; sampling distributions; the central limit theorem; descriptive statistics; and the theory of statistical estimation and testing, with applications to proportions, means, contingency tables, univariate linear regression, and analysis of variance. Prerequisite: MATH 3311.

MATH 4320. Mathematical Modeling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An advanced course in mathematical modeling requiring students to build and validate deterministic models of complex phenomena. The course will emphasize both qualitative and quantitative computational techniques of applied mathematics. Prerequisites: MATH 2414 and 6 hours of advanced MATH.

MATH 4332. Abstract Algebra. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
The study of preliminary notions, group theory, the theory of rings and ideals, and polynomial rings. Prerequisites: MATH 2414 and MATH 3318.

MATH 4370. Introduction to the History of Mathematics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introduction to the historical and philosophical development of the various branches of mathematics. The evolution of mathematical ideas will be studied from their developmental stages to the modern concepts used today. Prerequisite: 6 advanced hours in MATH.

MATH 4384. Internship. 3 Credit Hours (Lecture: 0 Hours, Lab: 4 Hours).
The student will complete a supervised and comprehensive work experience in a mathematics-related position with a public or private business organization for career preparation in a mathematics-related enterprise. The work experience must be formally approved and arranged with a cooperating sponsor prior to semester of enrollment in the course, and should be completed within the semester of course enrollment. Oral and written reports of the internship experience will be required. Prerequisites: At least 24 hours of degree-applicable MATH coursework with no grade lower than a 'C' in a MATH course, minimum 2.6 MATH GPA, minimum 2.6 overall GPA, junior or senior classification, and approval of department head.

MATH 4390. Math Topics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Topics will be selected from areas of mathematics suitable for upper level study. This course may be repeated once, with department head approval, as topics change. Prerequisites: MATH 2414 and 6 hours of upper level mathematics.

MATH 4486. Mathematics Problems. 1-4 Credit Hours (Lecture: 0 Hours, Lab: 1-4 Hours).
Special problems in mathematics. Not covered by any course in the curriculum. Work may be either theory or laboratory. May be repeated with approval of the department head for additional credit. Prerequisite: Approval of department head.

Statistics Courses

STAT 2300. Introduction to Applied Statistics Using Technology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduction to data types, sampling and bias, graphs, descriptive statistics, linear regression, correlation, probability, random variables of discrete type, binomial Poisson and geometric distributions, continuous random variables and the normal distribution, sampling distributions and the central limit theorem. Statistical software such as R, Python, or SAS are integrated throughout the course. Prerequisite: corequisite: MATH 2412.

STAT 2301. Intermediate Statistical Methods using Technology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Descriptive statistics, estimation using confidence intervals, hypothesis tests of one population parameter, two population comparisons, ANOVA completely randomized design, ANOVA completely randomized block design. Statistical software such as R, Python, or SAS are integrated throughout the course. Prerequisite: STAT 2300.

STAT 3311. Probability & Statistics I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Topics will include probability axioms and properties; conditional probability and independence; counting techniques; and discrete, continuous, univariate, and multivariate random variables. Prerequisite: MATH 2414.

STAT 3312. Probability & Statistics II. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Topics will include normal distributions; sampling distributions; the central limit theorem; descriptive statistics; and the theory of statistical estimation and testing, with applications to proportions, means, contingency tables, univariate linear regression, and analysis of variance. Prerequisite: MATH 3311 or STAT 3311.

STAT 3364. Data Analysis I. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Mathematical foundations of data analysis techniques. Applications of Lagrangians to support vector machines, gradient descent methods for artificial neural networks, and conditional probabilities for Bayesian classifiers. Additional topics will be selected from: the class imbalance problem, cost sensitive learning, bootstrapping, kernel methods, impurity measures, distance metrics, topological data analysis, anomaly detection and convergence theorems for various methods. Prerequisites: MATH 3318, MATH 3433, COSC 1436, and one course from (MATH 1342, STAT 2301, STAT 3312, or MATH 3450).

STAT 4086. Statistics Problems. 1-4 Credit Hours (Lecture: 0 Hours, Lab: 1-4 Hours).
Special problems in statistics. Not covered by any course in the curriculum. Work may be either theory or laboratory. May be repeated with approval of the department head for additional credit. Prerequisite: Approval of department head.

STAT 4098. Undergraduate Research Project. 1-3 Credit Hours (Lecture: 0 Hours, Lab: 1-3 Hours).
Methods of research in statistics through a research project directed by a departmental faculty member. The student is required to prepare a final report and presentation. No credit is earned until the student has enrolled in at least 3 credit hours and the final report and presentation are certified as completed by the faculty member directing the project, at which time the student will receive 3 credit hours. Prerequisite: Approval of department head.

STAT 4185. Career Pathways Seminar in Mathematics & Statistics. 1 Credit Hour (Lecture: 1 Hour, Lab: 0 Hours).
In this course, students will have the opportunity to explore career opportunities in mathematics and statistics. The course will focus on resume building, mock interviews and job searches. Prerequisite: MATH or STAT major.

STAT 4300. Linear Models. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Development of the matrix theory needed to formulate, analyze, and verify model assumptions of linear models. Parameter estimation and hypothesis testing for linear models utilizing least squares. Applying linear models to real world problems. Prerequisites: MATH 3318, STAT 3312, and STAT 2301.

STAT 4301. Design of Experiments. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
Introduction to model design. Topics can be chosen from, but are not limited to, ANOVA completely randomized design, ANOVA completely randomized block design, fixed and random effects, factorial designs, analysis of covariance, or categorical data analysis. Prerequisite: STAT 4300.

STAT 4302. Nonparametric Statistics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduction to nonparametric statistics. Topics will include hypothesis testing, contingency tables, rank tests, and goodness-of-fit tests Prerequisite: STAT 2301, STAT 3312.

STAT 4310. Bayesian Analysis. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduction to Bayesian analysis, including comparisons of Bayesian and frequentist techniques. Topics will include prior and posterior distributions, Bayesian updating, and implementation of Markov Chain Monte Carlo and Gibbs sampling. Prerequisite: STAT 2301, STAT 3312.

STAT 4320. Time Series Analysis. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Statistical analysis of time series data in the time and frequency domains. Topics will include auto-regressive, moving average, and ARIMA models, the autocovariance and partial autocovariance functions, and spectral analysis. Prerequisite: STAT 2301, STAT 3312.

STAT 4384. Internship. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The student will complete a supervised and comprehensive work experience in a statistics-related position with a public or private business organization for career preparation in a statistics-related enterprise. The work experience must be formally approved and arranged with a cooperating sponsor prior to semester of enrollment in the course, and should be completed within the semester of course enrollment. Oral and written reports of the internship experience will be required. Prerequisite: Approval of department head.

STAT 4390. Statistics Topics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Topics will be selected from areas of statistics suitable for upper level study. This course may be repeated once, with department head approval, as topics change. Prerequisite: Approval of department head.

STAT 4464. Data Analysis II. 4 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
Advanced statistical analysis using supervised and unsupervised machine learning and appropriate software packages such as R, Python, SAS, or SQL. Large data sets are utilized extensively. Prerequisite: MATH 3364 or STAT 3364.

Neuroscience

Dr. Max Sanderford, Interim Department Head
Department of Neuroscience
Science 203C
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The Department of Neuroscience provides students with an opportunity to obtain a comprehensive understanding of the intricate workings of the nervous system. Students will delve into an interdisciplinary curriculum and explore neuroanatomy, neurophysiology, sensory processing, motor control, behavioral neuroscience, and neuropharmacology. The department emphasizes critical thinking, research skills, and a multidisciplinary approach, preparing graduates for diverse careers in interdisciplinary research, graduate programs in neuroscience and related fields, industry, and healthcare. The neuroscience department equips students with the knowledge and skills essential for addressing the complexities of the nervous system and the evolving landscape of neural science. The department features neuroscience faculty and student research, the Neuroscience Club, and neuroscience outreach initiatives.

The Bachelor of Science in Neuroscience

General Education Requirements (p. 396)		**42**
NRSC 2345	Introduction to Neuroscience	3
NRSC 3300	Neuroscience Laboratory Methods	3
NRSC 3310 [WI (p. 396)]	Origins of Neuroscience	3
NRSC 3320	Professional Development in Neuroscience	3
NRSC 3332	Neuropharmacology	3

NRSC 3340	Statistics in Neuroscience	3
NRSC 3350	Functional Neuroanatomy	3
NRSC 3360	Neurophysiology	3
NRSC 4312	Behavioral Neuroscience	3
NRSC 4350 [WI (p. 396)]	Research Methods in Neuroscience	3
Choose one of the following		3
BIOL 2300	Cell Biology	
COSC 1302	Introduction to Computer Science	
COSC 1436	Programming Fundamentals I	
Choose 18 hours of the following		18
COSC 3360	Python Programming for Data Science	
NRSC 4303	Neuroethology	
NRSC 4305	Neuromechanics	
NRSC 4320	Neuroscience of Pain	
NRSC 4330	Cellular and Molecular Neuroscience	
NRSC 4380	Research Hours in Neuroscience	
NRSC 4390	Topics in Neuroscience	
BIOL 1406	Biology for Science Majors	4
BIOL 2401	Anatomy and Physiology I	4
BIOL 2402	Anatomy & Physiology II	4
CHEM 1311 [shared]	College Chemistry I (Lecture)	
CHEM 1111 [shared]	College Chemistry I (Laboratory)	
CHEM 1312 [shared]	College Chemistry II (Lecture)	
CHEM 1112 [shared]	College Chemistry II (Laboratory)	
PHYS 1401	College Physics I	4
PHYS 1402	College Physics II	4
MATH 1314 [shared]	College Algebra	
MATH 1316	Plane Trigonometry	3
or MATH 2412	Precalculus Math	
MATH 2413	Calculus I	4
Total Hours		**120**

Minor in Neuroscience

A maximum of 9 hours will be counted in the major and minor concurrently.

Required Courses		
NRSC 2345	Introduction to Neuroscience	3
Choose 5 courses from the following (at least 2 advanced courses):		**15**
BIOL 2300	Cell Biology	
PBHL 1310	Health and Society: An Introduction to Public Health	
PSYC 3301	Psychology of Learning	
PSYC 3305	Human Cognitive Processes	
NRSC 3300	Neuroscience Laboratory Methods	
NRSC 3310 [WI (p. 396)]	Origins of Neuroscience	
NRSC 3320	Professional Development in Neuroscience	
NRSC 3332	Neuropharmacology	
NRSC 3340	Statistics in Neuroscience	
NRSC 3350	Functional Neuroanatomy	
NRSC 3360	Neurophysiology	
NRSC 4303	Neuroethology	
NRSC 4305	Neuromechanics	
NRSC 4312	Behavioral Neuroscience	
NRSC 4350 [WI (p. 396)]	Research Methods in Neuroscience	
NRSC 4320	Neuroscience of Pain	
NRSC 4330	Cellular and Molecular Neuroscience	
NRSC 4380	Research Hours in Neuroscience	
NRSC 4390	Topics in Neuroscience	
Total Hours		**18**

Professor and Department Head

- Dr. Max Sanderford

Associate professor

- Dr. Amber Harris Bozer

Assistant professors

- Dr. Michael Luera
- Dr. Jesús A. Hernández-Sarabia

Visiting Instructor

- Mr. Tracy Brown

Courses

NRSC 2345. Introduction to Neuroscience. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An introduction to neuroscientific principles. Emphasis will be placed upon neuroanatomical, neurochemical, and neurophysiological components of the nervous system.

NRSC 3300. Neuroscience Laboratory Methods. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Students will explore laboratory methods in varied approaches of neuroscience research. Students will review the principles of neuroscientific approaches and learn experimental techniques, with an emphasis on electrophysiology.

NRSC 3310. Origins of Neuroscience. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
A survey of historical literature and major findings in the field of neuroscience from ancient times to the present. A review of the contributions of the pioneers of the nervous system.

NRSC 3320. Professional Development in Neuroscience. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A focus on professional development for students obtaining a degree in neuroscience. A survey of the essential skills and knowledge needed for a successful transition to a professional career including networking, career paths, job search strategies, research funding/grant writing, professionalism and ethics, and collaboration.

NRSC 3332. Neuropharmacology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A survey of the neuroscientific basis of the effect of drugs on the nervous system. Emphasis will be placed on the neurophysiological and neurochemical mechanisms of action, especially effects on synaptic transmission.

NRSC 3340. Statistics in Neuroscience. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
The foundations of statistical methods as they apply to the field of neuroscience. Learners will be equipped with knowledge to conduct descriptive and inferential statistics and will be introduced to commonly used software packages. Students will be asked to critically evaluate existing neuroscience findings with an emphasis placed on techniques widely used in neuroscience. Prerequisite: NRSC 2345.

NRSC 3350. Functional Neuroanatomy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An in-depth exploration of the structure and function of the nervous system with an emphasis placed on the complex relationships between neural structures and their associated functions. Cutting-edge research in functional neuroanatomy will be explored. Prerequisite: NRSC 2345.

NRSC 3360. Neurophysiology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course offers a comprehensive exploration of the electrical and biochemical processes that underlie the function of the nervous system, including an in-depth understanding of the principles governing the generation and transmission of neural signals from the level of the membrane, circuit, sensory and motor systems, and macro levels of the nervous system. Prerequisite: NRSC 2345.

NRSC 4303. Neuroethology. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
An exploration of the intricate intersection of neuroscience and behavior, focusing on the study of animal behaviors in the context of their neural underpinnings. Includes a review of the principles and methods used in investigating the neural mechanisms that drive animal behavior in their natural and laboratory environments. Prerequisite: NRSC 2345 and Junior standing.

NRSC 4305. Neuromechanics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course explores the intricate interplay between the nervous system and mechanical aspects of movement, providing students with an in-depth understanding of the principles governing the integration of neural control and biomechanics. Through a multidisciplinary approach, students will delve into the complex relationship between neural processes and mechanical forces that govern human and animal movement. Prerequisite: NRSC 2345 and Junior standing.

NRSC 4312. Behavioral Neuroscience. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Surveys the biological basis of behavior. Includes an in-depth examination of the physical structure of the human body and the role of chemical and electrical operations within it and how it influences behavior. Emphasis will be placed on the developmental, cognitive, affective and behavioral effects of such operations. Recent research will also be reviewed. Prerequisite: NRSC 2345 and Junior standing.

NRSC 4320. Neuroscience of Pain. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of dolorology and the neuroscientific basis of pain. Emphasis will be placed on pain processing in the nervous system, pain behaviors, mechanisms, and psychological implications. Historical and contemporary theories and research are investigated and examined. Prerequisite: Junior standing.

NRSC 4330. Cellular and Molecular Neuroscience. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
A study of the intricate world of cellular and molecular neuroscience, with a focus on the fundamental principles governing the structure and function of the nervous system at the cellular and molecular levels, including the anatomy and functions of neurons, synapses, and the intricate signaling pathways that underlie complex brain functions. Prerequisite: NRSC 2345 and junior standing.

NRSC 4350. Research Methods in Neuroscience. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
A comprehensive exploration of research design principles, emphasizing the development of clear research questions and hypotheses in the field of neuroscience, including in-depth discussion of experimental methodologies, including behavioral assays, neuroimaging techniques, and molecular approaches. Prerequisite: NRSC 2345 and Junior standing.

NRSC 4380. Research Hours in Neuroscience. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Independent research study hours under the supervision of a faculty mentor in a neuroscience research laboratory.

NRSC 4390. Topics in Neuroscience. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course provides a dynamic exploration of cutting-edge research and emerging themes within the evolving field of neuroscience. Students will delve into specialized topics, deepen their understanding of current research, and foster their ability to synthesize information from diverse neuroscience subfields.

College of Leadership and Military Studies

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The College of Leadership and Military Studies provides a living-learning leadership experience for Tarleton students who want to prepare themselves for future leadership roles in the Armed Forces or agency, or defense related industry. Students live together on the Stephenville campus, practice the toughest leadership challenges -- leading their peers -- and participate in a range of activities on campus and in the local community.

The College of Leadership and Military Studies is comprised of the Department of Leadership and Strategic Studies, the Corps of Cadets, Army ROTC, and Air Force ROTC that is made available through a Cross-Town Program with Air Force ROTC at Texas Christian University (TCU) in Fort Worth.

Students who participate in Army ROTC and Air Force ROTC are members of the Corps of Cadets. Students may also participate in the Corps of Cadets' civilian leadership track, Texan Leaders, without any obligation to serve in the military upon graduation.

If you are looking for a challenge and want to belong to a visible student group steeped in Tarleton's history, check out our programs and courses. We would love to give you a tour and connect you to current cadets to get the cadet perspective on whichever program you are considering.

Departments and Programs

- Department of Aerospace Studies (p. 363)
- Department of Leadership and Strategic Studies (p. 365)
  - BA in Leadership and Strategic Studies
  - BS in Leadership and Strategic Studies
  - BAAS in Leadership and Strategic Studies
- Department of Military Studies (p. 370)

Aerospace Studies/Air Force ROTC

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Tarleton State University has a Crosstown Agreement with the U.S. Air Force and Texas Christian University's Department of Aerospace Studies to provide AFROTC courses and scholarships for cadets attending Tarleton at the Stephenville and Ft Worth Campuses. Classes and labs are taught at the TCU campus in Ft. Worth on Tuesday and Thursday afternoons from 1:00-6:00 pm. Transportation for Stephenville cadets is provided by the Office of the Commandant. If you have any questions regarding the application process, contact the TCU AFROTC office at (817) 257-7461.

Aerospace Studies Program Requirements

A four-year program that enables Cadets to take advantage of four years of aerospace studies courses. Each semester, for the first two years, Cadets take a one-credit hour academic class and a one-credit hour Pass/No-Credit Leadership Laboratory (LLab). The first two years collectively are referred to as the General Military Course (GMC). Upon successful completion of the GMC and an ensuing four-week Air Force paid field training course, qualified and selected students may elect to enroll in the final two years, referred to as the Professional Officer Course (POC). Each semester in the POC, students take a three-credit hour academic class and a one-credit hour Pass/No-Credit LLab. AFROTC uniforms and textbooks are issued by the unit.

Eligibility Requirements

- Be a full-time student (12 semester hours or more)
- Be a U.S. Citizen
- Be in good physical condition/health

- Have good moral character
- Be no older than 34 years upon commissioning

Aerospace Studies

Enrollment in the General Military Course (first two years) is voluntary for eligible students and does not obligate non-scholarship students for further military service. The Professional Officer Course (last two years) is also voluntary but competitive. Because the Professional Officer Course leads to a commission in the U.S. Air Force, those selected to continue training will incur military obligation.

AFROTC Benefits

As Air Force ROTC cadets, students are entitled to selective benefits. Social and co-curricular activities, together with leadership and academic training, are all part of Air Force ROTC. Contracted Cadets receive a nontaxable subsistence allowance each month during the school year. The detachment sponsors a Civil Air Patrol where cadets can obtain front-seat and back-seat flying time in Cessna aircraft. Drill team, honor guard and Arnold Air Honor Society are just a few social outlets for the Cadets. Summer opportunities for Cadets can include a paid visit to a military installation for two weeks, freefall parachuting, combat survival training, flight nurse shadowing and Cadet training assistant duty at field training.

AFROTC Scholarships

Air Force ROTC offers scholarships that vary in length of award and amount based on academic major and applicant qualifications. All awarded scholarships pay a stipend for textbooks and fees, plus a monthly, nontaxable, stipend during the school year. Scholarship awards are based on specific academic majors related to the needs of the U.S. Air Force. These scholarship opportunities for in-college students are determined at the national level by Air Force ROTC and are subsequently administered by the detachment/Department of Aerospace Studies. Scholarship applicants are selected using the whole-person concept, which includes objective factors (i.e., GPA, standardized test scores (SAT/ACT), and physical fitness test) and subjective factors (i.e., personal evaluations). Students who are enrolled in Air Force ROTC generally improve their scholarship selection opportunity.

In addition to meeting the general qualifications mentioned above, scholarship applicants must be at least 17 years of age when the scholarship is activated and must be less than 31 years of age as of the end of their commissioning year. Because the scholarship program varies according to budget and needs of the Air Force, interested applicants should contact the Department of Aerospace Studies at (817) 257-7461 or www.afrotc.tcu.edufor specifics.

AFROTC Commissioning

Upon successful completion of the AFROTC Program and baccalaureate or graduate degree, a Cadet is commissioned a Second Lieutenant in the U.S. Air Force. In some instances, active service can be delayed by students continuing in post-baccalaureate degree programs.

Courses

To be eligible to enroll in any of these classes, a student must be a member of the Texans Corps of Cadets. See University SAP 13.99.99.t0.01(6.1).

Courses

AEST 1101. Foundation of the US Air Force I. 1 Credit Hour (Lecture: 1 Hour, Lab: 1 Hour).
Air Force AEST 1101 in the fall and AEST 1102 in the spring: A survey course designed to introduce students to the U.S. Air Force and Air Force ROTC. Featured topics include: mission and organization of the Air Force, officership and professionalism, military customs and courtesies, Air Force officer opportunities, group leadership problems, and an introduction to communication skills. Leadership Laboratory L100 must be taken and complements this course by providing cadets with followership experiences.

AEST 1102. Foundation of the US Air Force II. 1 Credit Hour (Lecture: 1 Hour, Lab: 1 Hour).
Air Force AEST 1101 in the fall and AEST 1102 in the spring: A survey course designed to introduce students to the U.S. Air Force and Air Force ROTC. Featured topics include: mission and organization of the Air Force, officership and professionalism, military customs and courtesies, Air Force officer opportunities, group leadership problems, and an introduction to communication skills. Leadership Laboratory L100 must be taken and complements this course by providing cadets with followership experiences.

AEST 2101. Evolution of US Air & Space Power I. 1 Credit Hour (Lecture: 1 Hour, Lab: 1 Hour).
Air and Space Power (AEST 2101 in the fall and AEST 2102 in the spring): A survey course designed to examine general aspects of air and space power through a historical perspective. Utilizing this perspective, the course covers a time period from the first balloons and dirigibles to the space-age global positioning systems of the Persian Gulf War. Historical examples are provided to extrapolate the development of Air Force capabilities (competencies), and missions (functions) to demonstrate the evolution of what has become today's USAF air and space power. Furthermore, the course examines several fundamental truths associated with war in the third dimension: e.g. Principles of War and Tenets of Air and Space Power. As a whole, this course provides the student with a knowledge level understanding for the general element and employment of air and space power, from an institutional, doctrinal, and historical perspective. In addition, the students will continue to discuss the importance of the Air Force Core Values with the use of operational examples and historical Air Force leaders and will continue to develop their communication skills. Laboratory L100 must be taken and complements this course by providing cadets with followership experiences.

AEST 2102. Evolution of US Air & Space Power II. 1 Credit Hour (Lecture: 1 Hour, Lab: 1 Hour).
Air and Space Power (AEST 2101 in the fall and AEST 2102 in the spring): A survey course designed to examine general aspects of air and space power through a historical perspective. Utilizing this perspective, the course covers a time period from the first balloons and dirigibles to the space-age global positioning systems of the Persian Gulf War. Historical examples are provided to extrapolate the development of Air Force capabilities (competencies), and missions (functions) to demonstrate the evolution of what has become today's USAF air and space power. Furthermore, the course examines several fundamental truths associated with war in the third dimension: e.g. Principles of War and Tenets of Air and Space Power. As a whole, this course provides the student with a knowledge level understanding for the general element and employment of air and space power, from an institutional, doctrinal, and historical perspective. In addition, the students will continue to discuss the importance of the Air Force Core Values with the use of operational examples and historical Air Force leaders and will continue to develop their communication skills. Laboratory L100 must be taken and complements this course by providing cadets with followership experiences.

AEST 3301. Leadership Studies I. 3 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
AEST 3301 is a study of leadership, management fundamentals, professional knowledge, leadership ethics and the communication skills required of a junior military officer. Case studies are used to examine leadership and management situations as a means of demonstrating and exercising practical application of the concepts being studied. Course objective is for student to comprehend and apply the concepts of ethical behavior as well as comprehend the selected concepts, principles and theories of leadership and management. Laboratory L100 must be taken and consists of activities classified as leadership and management experiences. It involves the planning and controlling of military activities of the Cadet Corps; and the preparation and presentation of briefings and other oral and written communications.

AEST 3302. Leadership Studies II. 3 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
AEST 3302 builds upon the concepts established in AEST 3301. Case studies are used to examine Air Force leadership and management situations as a means of demonstrating and exercising practical application of the concepts being studied. Course objective is for the student to comprehend and apply the concepts of conflict management, mentorship and counseling in a military environment, understand the principles of leadership authority and responsibility as it pertains to the military officer. Laboratory L100 must be taken and consists of activities classified as leadership and management experiences. It involves the planning and controlling of military activities of the Cadet Corps; and the preparation and presentation of briefings and other oral and written communications. Prerequisite: AEST 3301 or permission of the instructor.

AEST 4301. National Security Affairs I. 3 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
Course is designed to examine the national security process, regional studies, advanced leadership ethics, and Air Force doctrine. Special topics of interest focus on the military as a profession, officership, military justice, civilian control of the military and current issues affecting military professionalism. Course objective is for student to comprehend basic elements of national security policy, Air Force functions and competencies and role of the military as it pertains to national security policy. Laboratory L100 must be taken and consists of activities classified as leadership and management experiences. It involves the planning and controlling of military activities of the Cadet Corps; and the preparation and presentation of briefings and other oral and written communications.

AEST 4302. National Security Affairs II. 3 Credit Hours (Lecture: 3 Hours, Lab: 3 Hours).
AEST 4302 builds upon the concepts established in AEST 4301. Course is designed to examine the national security process, regional studies, advanced leadership ethics, and Air Force doctrine. Special topics of interest focus on responsibility, authority and functions of an Air Force Commander, the military Major Commands Area of Responsibilities, basic introduction of military law and the Code of Conduct. Laboratory L100 must be taken and consists of activities classified as leadership and management experiences. It involves the planning and controlling of military activities of the Cadet Corps; and the preparation and presentation of briefings and other oral and written communications. Prerequisite: AEST 4301 or permission of the instructor.

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The Department of Leadership Studies offers a Bachelor of Applied Arts and Sciences, Bachelor of Art, and Bachelor of Science in Leadership and Strategic Studies. The department also offers a Minor in Leadership Studies.

Program Requirements for the Bachelor of Applied Arts and Sciences in Leadership and Strategic Studies

General Education Requirement		**42**
HIST 1301 [shared]	United States History I	
HIST 1302 [shared]	United States History II	
SOCI 1301 [shared]	Introductory Sociology	
Choose 6 Credit Hours WI Courses		6
STRG 4301 [WI (p. 396)]	International Law	
SOCI 4302 [WI (p. 396)]	Methods of Social Research	
POLS 3308 [WI (p. 396)]	International Politics	
HIST 4301 [WI (p. 396)]	United States and the World	
LEGL 4301 [WI (p. 396)]	Constitutional Law	
Choose 39 credit hours from the following; 30 hours must be Advanced		39
LDRS 1301	Foundations of Leadership	
LDRS 1302	Leadership and the Humanities	
LDRS 3301	Leadership and Change	
LDRS 3302	Leadership and Ethics	
LDRS 3303	Elements of Leading Teams	
STRG 3317	U.S. Military History	
STRG 3318	Maneuver Warfare and Modern Conflict	
STRG 4302	Cybersecurity Law and Policy	
STRG 4303	Military Law	
LDRS 4308	Leadership Studies Capstone Course	
MGMT 3325	Leadership	
SOCI 3330	Social Science Statistics	
POLS 2304	Introduction to Political Science	
POLS 3316	Political Science Research Methods	
POLS 3314	Comparative Politics	
POLS 4315	U.S Foreign Policy	
HIST 4300	World War II and the Holocaust	
HIST 3317	U.S. Military History	
HIST 4327	History of the British Empire	
SOCI 4313	Globalization	
CRIJ 3340	Homeland Security	
CRIJ 3341	Terrorism	
CRIJ 4353	Global Cyber-Security	
PHIL 3304	World Religions: Theory, Origins, & Practices	

PHIL 4385	Philosophy Seminar	
INTL 4075	Study Abroad	
BLAW 4384	International Business Law	
Credit for Prior Learning Component:		
Prior Learning Credit		12-33
Electives		0-21
Total Hours		**120**

Program Requirements for the Bachelor of Art in Leadership and Strategic Studies

The Bachelor of Art in Leadership and Strategic Studies maintains a common multi-disciplinary curriculum designed to prepare cadets for commissioned service in the United States military, primarily Army and Air Force, as well as traditional students looking to acquire skills to enter into other related professions. The curriculum will also prepare students to attend graduate school in degree programs focused on strategy, defense, and leadership. The Bachelor of Arts focuses on foreign languages, which addresses a capability that the U.S. military requires in a time of persistent conflict and powerful competition across the spectrum of international relations. Implementation of the degree lays the foundation to build the knowledge infrastructure to support accession as a senior military college under the authority of Title 10 United States Code § 2111(a).

General Education Requirements (p. 396)		**42**
SOCI 1301 [shared]	Introductory Sociology	
HIST 1301 [shared]	United States History I	
HIST 1302 [shared]	United States History II	
POLS 2304	Introduction to Political Science	3
LDRS 1301	Foundations of Leadership	3
LDRS 1302	Leadership and the Humanities	3
LDRS 3301	Leadership and Change	3
LDRS 3302	Leadership and Ethics	3
LDRS 4308	Leadership Studies Capstone Course	3
SOCI 3330	Social Science Statistics	3
MGMT 3325	Leadership	3
Choose Two Writing Intensive Courses		6
STRG 4301 [WI (p. 396)]	International Law	
HIST 4301 [WI (p. 396)]	United States and the World	
POLS 3308 [WI (p. 396)]	International Politics	
LEGL 4301 [WI (p. 396)]	Constitutional Law	
Choose One Methods Course		3
SOCI 4302 [WI (p. 396)]	Methods of Social Research	
POLS 3316	Political Science Research Methods	
Foreign Language		14
Choose 27 Credits of Advised Electives		27
LDRS 3303	Elements of Leading Teams	
STRG 3317	U.S. Military History	
STRG 3318	Maneuver Warfare and Modern Conflict	
STRG 4302	Cybersecurity Law and Policy	
STRG 4303	Military Law	
MLSC 3301	Training Management and the Warfighting Functions	
MLSC 3302	Applied Leadership in Small Unit Operations	
MLSC 4301	The Army Officer	
MLSC 4302	Company Grade Leadership	
AEST 3301	Leadership Studies I	
AEST 3302	Leadership Studies II	
AEST 4301	National Security Affairs I	
AEST 4302	National Security Affairs II	
POLS 3314	Comparative Politics	
POLS 4306	European Politics	
POLS 4309	Politics of the Middle East	
POLS 4313 [WI (p. 396)]	East and South Asian Politics	
POLS 4314 [WI (p. 396)]	African Politics	
POLS 4315	U.S Foreign Policy	
HIST 3317	U.S. Military History	
HIST 4300	World War II and the Holocaust	
HIST 4327	History of the British Empire	
CRIJ 3340	Homeland Security	
CRIJ 3341	Terrorism	
CRIJ 4353	Global Cyber-Security	
PHIL 3304	World Religions: Theory, Origins, & Practices	
PHIL 4385	Philosophy Seminar	
SOCI 4313	Globalization	
INTL 4075	Study Abroad	
BLAW 4384	International Business Law	

General Electives	4
Total Hours	**120**

Program Requirements for the Bachelor of Science in Leadership and Strategic Studies

The Bachelor of Science in Leadership and Strategic Studies maintains a common multi-disciplinary curriculum designed to prepare cadets for commissioned service in the United States military, primarily Army and Air Force, as well as traditional students looking to acquire skills to enter into other related professions. The curriculum will also prepare students to attend graduate school in degree programs focused on strategy, defense, and leadership. The Bachelor of Science examines the capabilities that the U.S. military requires in a time of persistent conflict and powerful competition across the spectrum of international relations. Nested within the Bachelor of Science is a cyber security certificate. Cyber, as a warfighting domain, is the emergent field that commissioned officers must have some degree of competency, and this Bachelor of Science provides for it. In broad terms, the implementation of the degree lays the foundation to build the knowledge infrastructure to support accession as a senior military college under the authority of Title 10 United States Code § 2111(a).

General Education Requirements (p. 396)		**42**
HIST 1301 [shared]	United States History I	
HIST 1302 [shared]	United States History II	
SOCI 1301 [shared]	Introductory Sociology	
POLS 2304	Introduction to Political Science	3
LDRS 1301	Foundations of Leadership	3
LDRS 1302	Leadership and the Humanities	3
LDRS 3301	Leadership and Change	3
LDRS 3302	Leadership and Ethics	3
LDRS 4308	Leadership Studies Capstone Course	3
MGMT 3325	Leadership	3
SOCI 3330	Social Science Statistics	3
Choose Two Writing Intensive Courses		6
STRG 4301 [WI (p. 396)]	International Law	
POLS 3308 [WI (p. 396)]	International Politics	
HIST 4301 [WI (p. 396)]	United States and the World	
LEGL 4301 [WI (p. 396)]	Constitutional Law	
Choose One Methods Course		3
SOCI 4302 [WI (p. 396)]	Methods of Social Research	
POLS 3316	Political Science Research Methods	
BCIS 3347	Data Communications	3
Choose 24 Credits of Advised Electives		24
LDRS 3303	Elements of Leading Teams	
STRG 3317	U.S. Military History	
STRG 3318	Maneuver Warfare and Modern Conflict	
STRG 4302	Cybersecurity Law and Policy	
STRG 4303	Military Law	
MLSC 3301	Training Management and the Warfighting Functions	
MLSC 3302	Applied Leadership in Small Unit Operations	
MLSC 4301	The Army Officer	
MLSC 4302	Company Grade Leadership	
AEST 3301	Leadership Studies I	
AEST 3302	Leadership Studies II	
AEST 4301	National Security Affairs I	
AEST 4302	National Security Affairs II	
POLS 3301	Political Economy of Globalization	
POLS 3314	Comparative Politics	
POLS 4315	U.S Foreign Policy	
HIST 3317	U.S. Military History	
HIST 4300	World War II and the Holocaust	
HIST 4327	History of the British Empire	
SOCI 4313	Globalization	
CRIJ 3340	Homeland Security	
CRIJ 3341	Terrorism	
PHIL 3304	World Religions: Theory, Origins, & Practices	
PHIL 4385	Philosophy Seminar	
INTL 4075	Study Abroad	
BLAW 4384	International Business Law	
Required Certificate - Cyber Security		15
CRIJ 3315	Rules of Criminal Evidence	
CRIJ 4353	Global Cyber-Security	
BCIS 4320	Computer Forensics	
BCIS 4342	Ethical Hacking & Network Defense	
BCIS 4345	Network and Systems Security	
General Electives		3
Total Hours		**120**

Requirements for the Minor in Leadership Studies

1. Membership in the Texan Corps of Cadets and 18 hours of university-recognized leadership coursework in one of the three tracks described below. All freshman and sophomore cadets will register for ROTC courses and labs. Sophomore cadets may request an exception to enroll in LDRS courses in lieu of ROTC courses through the Office of the Commandant. The Commandant has the final authority over all exceptions. At the end of the sophomore year, cadets declare their intention to continue with ROTC courses or LDRS courses in the appropriate track:
   - Civilian Track - Successful completion of the Leadership Studies curricula combined with successful completion of the Leadership Progression in the Corps of Cadets.
   - Military Track - Successful completion of the Military Science or Aerospace studies curricula combined with successful completion of the Leadership Progression in the Corps of Cadets.
   - Combination Track - Cadets may use up to 10 credit hours from the Military Science or Aerospace Studies curricula toward completion of the 18-credit requirements above combined with successful completion of the Leadership Progression in the Corps of Cadets.
2. Satisfactory completion of Leadership Progression within the Tarleton Corps of Cadets. Leadership Progression is defined as a minimum of four semesters participation in the Tarleton Corps of Cadets, including: completion of Corps leadership positions, and participation in weekly physical training.
3. Satisfactory completion of the summer training or internship, and/or evaluation conducted by the Department of Military Science or Department of Leadership Studies.
4. A minimum of six hours of coursework at the 3000-level or above must be taken to fulfill the minor requirement.

Please choose one concentration from the list below.

Aerospace Studies

AEST 1101	Foundation of the US Air Force I	1
AEST L100	Leadership Lab [1]	1
AEST 1102	Foundation of the US Air Force II	1
AEST L100	Leadership Lab [1]	1
AEST 2101	Evolution of US Air & Space Power I	1
AEST L100	Leadership Lab [1]	1
AEST 2102	Evolution of US Air & Space Power II	1
AEST L100	Leadership Lab [1]	1
AEST 3301	Leadership Studies I	3
AEST L100	Leadership Lab [1]	1
AEST 3302	Leadership Studies II	3
AEST L100	Leadership Lab [1]	1
AEST 4301	National Security Affairs I	3
AEST L100	Leadership Lab [1]	1
AEST 4302	National Security Affairs II	3
AEST L100	Leadership Lab [1]	1
Total Hours		**24**

Civilian Track

LDRS 1201	Basics of Self-Leadership and Staff Work	2
LDRS 2301	Foundations of Leadership	3
LDRS 1302	Leadership and the Humanities	3
LDRS 2302	Elements of Leading Teams	3
LDRS 3301	Leadership and Change	3
LDRS 3302	Leadership and Ethics	3
LDRS 4086	Independent Study	1-6
LDRS 4308	Leadership Studies Capstone Course	3
Total Hours		**21-26**

Combination Track

Choose 18 hours from the following with no more than 10 hours from MLSC courses.		18
LDRS 1201	Basics of Self-Leadership and Staff Work	
LDRS 2301	Foundations of Leadership	
LDRS 2302	Elements of Leading Teams	
LDRS 3301	Leadership and Change	
LDRS 3302	Leadership and Ethics	
LDRS 4086	Independent Study	
MLSC 1201	Introduction to the Army	
MLSC 1202	Foundations of Agile and Adaptive Leadership	
MLSC 2301	Leadership and Decision Making	
MLSC 2302	Army Doctrine and Team Development	
MLSC 3301	Training Management and the Warfighting Functions	
MLSC 3302	Applied Leadership in Small Unit Operations	
MLSC 4086	Independent Study	
MLSC 4301	The Army Officer	

MLSC 4302	Company Grade Leadership	
Total Hours		**18**

Military Track

MLSC 1201	Introduction to the Army	2
MLSC 1202	Foundations of Agile and Adaptive Leadership	2
MLSC 2301	Leadership and Decision Making	3
MLSC 2302	Army Doctrine and Team Development	3
MLSC 3301	Training Management and the Warfighting Functions	3
MLSC 3302	Applied Leadership in Small Unit Operations	3
MLSC 4086	Independent Study	1-6
MLSC 4301	The Army Officer	3
MLSC 4302	Company Grade Leadership	3
Total Hours		**23-28**

Leadership Studies Courses

LDRS 1000. TCC Dual Admit. 0 Credit Hours (Lecture: 0 Hours, Lab: 0 Hours).

LDRS 1201. Basics of Self-Leadership and Staff Work. 2 Credit Hours (Lecture: 2 Hours, Lab: 0 Hours).
Individual assessments to provide insights into personal traits, characteristics, and tendencies. Basic skills of time management, goal setting, and personal planning. Identifying organizational protocols and procedures. Develop interpersonal communication skills, project implementation and quality assurance. Fundamentals of reporting orally and in writing.

LDRS 1301. Foundations of Leadership. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Advanced study of leadership theories and models. Explores major theories and applications associated with various leadership practices throughout the late 20th and early 21st centuries. Provide students the framework to critically think about their leadership philosophy and the situations they will encounter in future careers.

LDRS 1302. Leadership and the Humanities. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Introduction to leadership as an object of study through examination of its historical foundations and intellectual development. Readings selected from history, literature, philosophy, political theory, religion, and social theory. Emphasis on assessing these texts in light of reasoned argument and on drawing out their implications for leadership studies.

LDRS 2301. Foundations of Leadership. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Advanced study of leadership theories and models. Explores major theories and applications associated with various leadership practices throughout the late 20th and early 21st centuries. Provide students the framework to critically think about their leadership philosophy and the situations they will encounter in future careers.

LDRS 2302. Elements of Leading Teams. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Advanced study of team leadership and management. Explores team and group dynamics, organization, planning, and group behavior. Strategies for organizational assessment, tools for developing people within organizations, and techniques for developing and delivering training programs.

LDRS 3301. Leadership and Change. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This survey course introduces the student to a broad range of concepts, theories, and practices important for a basic understanding of the similarities and differences between leadership and management. Contemporary and advanced issues in change leadership such as creating a climate for change, implementing and sustaining change, building a change vision, adaptive leadership and change readiness.

LDRS 3302. Leadership and Ethics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Advanced study of important historical and contemporary ethical theories. Includes assessment and development of character and actions, application of ethical theories, their justification and relationship to society, and objective or subjective status in today's society.

LDRS 3303. Elements of Leading Teams. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines fundamental principles of group work and develops perspectives of leadership within teams to include team and group dynamics, organization, planning, and group behavior. Strategies for organizational assessment, tools for developing people within organizations, and techniques for developing and designing programs are also examined. Through intentional group interaction, students will achieve an advanced and holistic philosophical team leadership framework. Over the course of the semester, individuals will have opportunities to practice and apply what they have learned.

LDRS 4086. Independent Study. 1-6 Credit Hours (Lecture: 1-6 Hours, Lab: 0 Hours).
Topics vary according to student need. May be repeated for a maximum of 6 hours. Open to students of junior or senior classification. Prerequisite: Approval of the department head.

LDRS 4308. Leadership Studies Capstone Course. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
Capstone leadership course that serves as the cumulation of the Leadership and Strategic Studies program. Students use leadership theories and concepts to research leadership challenges and opportunities within the national defense system and organizations broadly. Students will employ research methods to gather and analyze data related to their research topic and write and present their findings and substantive recommendations in an appropriate forum. Prerequisite: None.

LDRS 4384. Leadership Field Experience. 3 Credit Hours (Lecture: 0 Hours, Lab: 3 Hours).
A supervised field based internship in which the student applies skills and knowledge gained through the John Tarleton Leadership Academy. The course provides students with an opportunity to exercise leadership fundamentals, specialized language, or technical/research skills within a governmental, public, or private business organization. Prerequisite: Approval of department head.

Strategic Studies Courses

STRG 3317. U.S. Military History. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines the evolution of American warfighting philosophy from the colonial period to the twenty-first century. Students will explore key historical conflicts and trace the operational and technological advances that have shaped U.S. military actions of the past. This course will also highlight the evolution of doctrinal thought, specifically the rise of maneuver warfare theory and understanding the framework of decision-making and adaptability in modern warfare. This course is compliant with U.S. Army TRADOC Regulation 350-13. Credit will not be awarded for both HIST 3317 and STRG 3317. Prerequisite: HIST 1301 and 1302; for History majors only, HIST 3340, which can be taken concurrently.

STRG 3318. Maneuver Warfare and Modern Conflict. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course explores the application of maneuver warfare doctrine in 21st century conflicts, focusing on contemporary warfighting theorists such as John Boyd, John Warden, and Thomas Hammes. Students will examine key topics in modern warfighting theory, net-centric warfare, and the evolving strategic environment faced by the U.S. military. The course provides an introduction - or re-introduction - to maneuver warfare concepts and their relevance in modern and future conflicts, emphasizing the military dimension of strategic and operational thought.

STRG 4301. International Law. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (p. 396)]
This course provides a broad overview of international law, including the ways in which international law is created, the entities to which it applies, and the mechanisms by which it is enforced. This class delves into the broad array of international legal rules on topics ranging from the international law of armed conflict, international trade and investment, the international law of the sea, human rights, the prevention of terrorism, the proliferation of weapons of mass destruction, and more. This class is writing intensive with assignments developed to enhance the writing process and encourage higher-order thinking within the context of international law.

STRG 4302. Cybersecurity Law and Policy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines theories, concepts, and structures instrumental in understanding cybersecurity and the governing legal and regulatory frameworks. To do that, this course surveys the history, aspects of law, computer science concepts, policy, and international norms related to cybersecurity. This course is designed as a foundation for further study in cybersecurity policy, but may be valuable to anyone seeking to better understand the nature of this developing concept and the governmental approach (domestic and international laws) and private actors seeking to control the landscape.

STRG 4303. Military Law. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).
This course examines the federal judiciary and its prominent role in the shaping of the nation's military laws. While the class examines the military's constitutional roots, its particular focus centers on the Cold War era from 1968 onward. That examination considers a historic analysis based on primary source materials nested with military law judicial decisions. A critical feature of military law is the maintenance of good order and discipline that is operationalized by the Uniform Code of Military Justice. As such, this unique justice system comes to life in the class by engaging in an end-of-semester capstone project that showcases a mock military court-martial with students/cadets role playing court participants.

Military Science/Army ROTC

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Reserve Officers' Training Corps (ROTC) Program

Requirements for Admission

Basic Course

All Military Science courses offered as part of the basic course are eligible for elective credit toward graduation. Course work consists of leadership development, time management, planning, physical fitness, life skills, self-confidence, and Army values. **Students do not incur any military service obligation for enrollment in the Basic Course.**

Advanced Course

The two-year advanced course is selective and elective, in that any qualified student may apply for admission. The application requires the approval of the Professor of Military Science. Qualified students will have the following prerequisites for advance course enrollment: at least two years of college remaining; maintain a 2.0 or better grade point average; complete the basic course or qualify by prior military training; and are physically qualified. The advanced course leads to a commission as an officer in the United States Army Reserve, Regular Army, or National Guard and is pursued under a written agreement with the Department of the Army. Advanced-course contract students are paid approximately $9,000 for the two-year course, which includes attendance at the ROTC Advanced Camp.

Two-Year Program

Students transferring to or currently enrolled at Tarleton, who cannot complete the Basic Course prior to becoming academic juniors or graduate students with at least two years remaining, may qualify to enter the advanced course by successfully completing a four-week Basic Course, conducted each summer at Fort Knox, Kentucky. Academic credit, travel, and pay are granted to students attending the course. Submit applications for course attendance to the Department of Military Science by April 15.

Credit for Previous Military Training

Students with previous military training may qualify for placement directly into an advanced course. The Professor of Military Science determines the placement for each student requesting this classification. To receive placement into an advanced course, a qualified student will have four academic semesters remaining for degree completion and an overall 2.0 grade point average.

Veterans

Students who have prior military service may be eligible for advanced placement.

National Guard/Reserves

Students who are currently members of the United States Army Reserves or the Army National Guard are eligible for advanced placement under the Simultaneous Membership Program.

Military Science Leadership Laboratory

Practical application of classroom instruction emphasizing military small unit tactics, water survival, orienteering, physical fitness, and basic military skills. Participating students are provided all uniforms and equipment.

Special Programs

Basic Camp

Cadet Basic Camp is the premier leadership program of its kind in the United States. An intense four-week introduction to Army life and leadership training of the Reserve Officers' Training Corps, the aim of the course is to motivate and qualify Cadets for entry into the Senior ROTC program. Basic Camp is designed for college students, typically between their sophomore and junior years. Upon successful completion of the course, graduates can take part in ROTC at their college as a third-year student in the four-year program. While attending Basic Camp at Fort Knox, Kentucky, Cadets gain an experience that runs the gamut of Army life and the responsibilities of being an officer. The course instills confidence and decision-making abilities to become a leader, in the Army and in life. Prerequisite: Approval of department head.

Cadet Advance Camp

The purpose of the course is to train U.S. Army ROTC Cadets to Army standards, to develop their leadership skills, and to evaluate their officer potential. Most Army Cadets attend Advanced Camp between their junior and senior undergraduate years after having contracted to join the Army. The 38-day course starts with individual training and leads to collective training, building from simple to complex tasks. This building-block approach permits integration of previously-learned skills into follow-on training. This logical, common sense training sequence is maintained for each training cycle. Every day at Advanced Camp is a day of training. Successful completion of Advanced Camp is a prerequisite to becoming an Army officer through ROTC. Prerequisite: MLSC 3301 Training Management and the Warfighting Functions Training Management and the Warfighting Functions and MLSC 3302 Applied Leadership in Small Unit Operations, or approval of department head.

Cadet Practical Field Training

The CPFT program includes summer training at Army Schools for Air Assault, Basic Airborne, Mountain Warfare, Northern Warfare, Sapper (Combat Engineer), Nursing, and Special Forces Combat Diver Qualification Course. Other summer training includes special courses such as Cadet Field Training at the United States Military Academy Cadet Leadership Development (Infantry) and University Officer Training Center in the United Kingdom.

Ranger Challenge

An adventure-oriented organization designed to develop leadership qualities, self-discipline, self-confidence, and resourcefulness through small unit tactics and inter-collegiate military skills competition. Members participate in several field training exercises during the semester. Open to all interested and qualified students with at least a 2.5 GPA.

Cadet Troop Leader Training (CTLT)

The Cadet Troop Leader Training (CTLT) track provides Cadets the opportunity to experience leadership in Army units over a three to four-week period during the summer. Cadets serve in lieutenant-level leadership positions in active duty units. The duration of Platoon Leader positions depends on the hosting unit and location. Assignments include units that are located CONUS and OCONUS. Cadets are assigned a unit mentor, and are provided on-post lodging and meals via a Dining Facility. This program is exclusively designed for MS III Cadets before and after completion of Advanced Camp.

Cadet Internships

Internships provide MSL I, II and III Cadets with an opportunity to exercise specialized language, technical or research skills. Internships range from three to eight weeks long. Cadets receive an Officer Evaluation Report upon completing the internship. Cadets who wish to participate in any internship must meet application requirements, submit an application packet and receive approval. Applications are due Fall of Freshman, Sophomore and Junior years. Only Cadets approved by their professor of military science and meeting all application requirements—academics, physical fitness scores, and personal statements—at the time of application will be considered for internships. Internship applications are specialized to each program offered. Timelines for submission may vary for some internships.

ROTC Scholarships

Competitive two-year, three-year, and four-year scholarships, which pay all tuition, laboratory fees, textbooks, and other required academic expenses or room and board, are available. All contracted Cadets receive a monthly stipend of $420 during the academic year. Additional scholarship funds are available through the Tarleton Corps of Cadets for qualified students based on merit and performance. Historically, qualified students receive an additional $700-$1,000 per semester. Students can apply these funds towards room and board, tuition, or spend at their discretion.

Military Science Minor

A student can achieve a minor in Military Science by completing 18 hours of Military Science, military history and related courses with at least 6 hours being advanced. The Professor of Military Science (PMS) must approve the coursework. ***To be eligible to enroll in any of these classes, a student must be a member of the Texan Corps of Cadets***. See University Standard Administrative Procedure 13.99.99.t0.01 (6.1).

Military Science Minor Requirements

Choose from the following: (6 hours must be advanced)		18
MLSC 1201	Introduction to the Army	
MLSC 1202	Foundations of Agile and Adaptive Leadership	
MLSC 2301	Leadership and Decision Making	
MLSC 2302	Army Doctrine and Team Development	
MLSC 3301	Training Management and the Warfighting Functions	
MLSC 3302	Applied Leadership in Small Unit Operations	
MLSC 4086	Independent Study	
MLSC 4301	The Army Officer	
MLSC 4302	Company Grade Leadership	
HIST 3317	U.S. Military History	
Other courses as advised by the PMS		

Courses

MLSC 1201. Introduction to the Army. 2 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
The purpose of this course is to introduce Cadets to the personal challenges and competencies that are critical for effective leadership. Cadets learn how the personal development of life skills such as critical thinking, time management, goal setting, stress management, and comprehensive fitness relate to leadership, and the Army profession.

MLSC 1202. Foundations of Agile and Adaptive Leadership. 2 Credit Hours (Lecture: 2 Hours, Lab: 2 Hours).
This course expands upon the fundamentals introduced in the previous course by focusing on communications, leadership, and problem solving. 'Life skills' lessons include: problem solving, goal setting, and interpersonal communication skills. The course also provides current information about life in the Army, the organizations of the Army, employment benefits, and work experiences expected of junior officers.

MLSC 2301. Leadership and Decision Making. 3 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
The first semester of the MS II year is designed to develop cadet's knowledge of self, self-confidence, and individual leadership skills. Through experiential learning activities, cadets develop problem solving and critical thinking skills, and apply communication, feedback and conflict resolution skills.

MLSC 2302. Army Doctrine and Team Development. 3 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
The second semester of the MS II year focuses on self development, guided by knowledge of self and group processes. Experiential learning activities are designed to challenge cadets' , knowledge and skills. This course also prepares enrolled students for the ROTC Advanced Course, as well as the summer Leaders Training Course.

MLSC 3301. Training Management and the Warfighting Functions. 3 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
This course is designed to enable a student with no prior military or cadet experience to quickly learn essential cadet knowledge and skills. The course introduces the principles of physical fitness, healthy lifestyles and the Leader Development Program that will be used to evaluate leadership performance and provides cadets with developmental feedback, used throughout the year. Cadets learn how to plan and conduct individual and small unit training, as well as basic tactical principles. The course conducts a four-week study of reasoning skills and the military-specified application of these skills in the form of the Army's troop leading procedures. The final four weeks examines officership. This course serves as the first and primary course of the ROTC Advanced Courses.

MLSC 3302. Applied Leadership in Small Unit Operations. 3 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
This course is designed to continue the development of cadets as leaders by presenting instructions in the areas of leadership, interpersonal communications, values and ethics. The leadership module expands on key leadership concepts and provides feedback for cadet leadership self-development efforts. Interpersonal communications lessons address general communication theory as well as written and spoken communication skills. The highlight of the communication module is the opportunity for cadets to present an information briefing and receive feedback from both instructor and fellow students.

MLSC 4086. Independent Study. 1-6 Credit Hours (Lecture: 1-6 Hours, Lab: 0 Hours).
A course open to Military Science students. Topics vary according to student need. May be repeated for a maximum of 6 hours. Open to students of junior or senior classification. Prerequisite: Approval of the department head.

MLSC 4301. The Army Officer. 3 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
This course concentrates on Army operations and training management, communications and leadership skills and supports the beginning of the final transition from cadet to lieutenant. The course enables cadets to attain knowledge and proficiency in several critical areas needed to operate effectively as an Army officer. These subjects have the added benefit of preparing cadets to lead the cadet battalion throughout the remainder of the year. At the end of this semester, cadets possess the fundamental skills, attributes, and abilities required to operate as competent leaders in the cadet battalion.

MLSC 4302. Company Grade Leadership. 3 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).
The course trains cadets on military law, task organizations, maintenance, supply management, and physical training. Cadets conduct a capstone practical exercise, assuming leadership roles as a lieutenant entering a new unit. The course is designed to prepare, transition, and develop senior cadets to become army officers.

Texan Corps of Cadets

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The Tarleton Corps of Cadets exemplifies the Texan values of excellence, integrity, and respect in all actions. Its members honor the traditions of both Tarleton State University and the military Services while developing tangible skills as "Leaders of Character."

Cadets are instilled with the values essential for service to our nation and are exceptionally qualified to succeed in business, government and the military. Members of the Corps can participate in any major area of study.

By joining the Corps, students:

- Accept a challenging lifestyle, both mentally and physically.
- Participate in a visible living-learning community unlike any other at Tarleton.
- Have access to ROTC scholarships and Tarleton scholarships specifically for cadets.
- Have an exclusive opportunity to obtain a minor in Leadership Studies.
- Join a rich military history and a proud tradition of excellence dating back to Tarleton's original Corps that began in 1917.

Honors College

Discover Your Path to Excellence

In the Honors College at Tarleton State University, exceptional students are part of a vibrant, close-knit community that blends the personalized experience of a small liberal arts college with the dynamic opportunities of a premier comprehensive national university. Here, you will be part of a community that fosters academic excellence, encourages leadership, and nurtures intellectual curiosity.

Our Honors College offers a range of exciting opportunities to suit different goals and ambitions:

- **University Honors** – Maintain a 3.0 GPA to thrive in an enriched academic environment.
- **Distinguished Honors** – Maintain a 3.0 GPA, complete an Honors thesis, and distinguish yourself as a top-tier scholar.
- **Presidential Honors** – Maintain a 3.4 GPA, complete an Honors thesis, and engage in exclusive seminars to elevate your academic experience to the highest level.

These opportunities provide a structured yet flexible pathway to success, designed to inspire students at all stages of their academic journey.

Beyond the classroom, the Honors College offers rich experiences to engage with the world around you. From cultural events like theater performances, symphonies, and art exhibits, to alumni networking and exciting travel opportunities—including a signature study abroad program—there are multiple opportunities to enhance and broaden your educational journey.

Incoming first-year students have the opportunity to live in the Honors Hall, a hub of activity and academic support. Here, you'll find administrative offices, lounges, classrooms, and meeting spaces designed for collaboration, networking, and easy access to advising and events. Due to the college's growth, living in the Hall is no longer required, so students may choose other options, such as the First-year Honors Community in Legacy Hall.

The Honors College also offers scholarships ranging from $1,000 to $10,000 per year, with participation requirements tied to each level of honors. Students receiving $4,000 or more will engage in Presidential Honors, which includes specialized seminars and completing an Honors thesis.

For more information on admission standards, program benefits, Honors Hall, scholarships, and the application process, visit www.tarleton.edu/honors or contact us at honors@tarleton.edu or 254-968-1926.

Unlock your potential—join the Tarleton State University Honors College today!

Academic Program Websites

College of Agriculture and Natural Resources

College of Agriculture and Natural Resources

- # Animal and Natural Resource Sciences (PhD) (https://www.tarleton.edu/degrees/animal-and-natural-resource-sciences-phd/)
- Department of Agricultural (https://www.tarleton.edu/agservices/)Education and Communication (https://www.tarleton.edu/agservices/)
  - # Agribusiness (BS) (https://www.tarleton.edu/degrees/agribusiness-bs/)
  - # Agricultural Communication (BS) (https://www.tarleton.edu/degrees/agricultural-communication-bs/)
  - # Agricultural Education (BS) (https://www.tarleton.edu/degrees/agricultural-education-bs/)
  - # Agricultural Economics (MS) (https://www.tarleton.edu/degrees/agricultural-economics-ms/)
  - # Agricultural Services and Development (BS) (https://www.tarleton.edu/degrees/agriculture-services-development-bs/)
  - # Agricultural Leadership, Education, & Communications (MS) (https://www.tarleton.edu/degrees/agricultural-consumer-resources-ms/)
- Department of Animal Science (https://www.tarleton.edu/animalsciences/)
  - # Animal Production (MAg) (https://programs.tarleton.edu/animal-production-ma/)
  - # Animal Science (BS) (https://www.tarleton.edu/degrees/animal-science-bs/)
  - # Animal Science (MS) (https://www.tarleton.edu/degrees/animal-science-ms/)
- Department of Wildlife (https://www.tarleton.edu/ecosciences/) and Natural Resources (https://www.tarleton.edu/ecosciences/)
  - # Horticultural and Plant Sciences (BS) (https://www.tarleton.edu/degrees/horticulture-and-plant-sciences-bs/)
  - # Wildlife, Sustainability, and Ecosystem Sciences (BS) (https://www.tarleton.edu/degrees/wildlife-sustainability-ecosystem-science-bs/)
  - # Zoo Animal Care and Management (BS)
  - # Agricultural and Natural Resources (MS) (https://www.tarleton.edu/degrees/agricutural-natural-resource-sciences-ms/)

Dr. Sam Pack College of Business

Dr. Sam Pack College of Business

- Department of Accounting, Finance, and Economics (https://www.tarleton.edu/afe/)
  - # Accounting (BBA) (https://www.tarleton.edu/degrees/accounting-bba/)
  - # Economics (BS) (https://www.tarleton.edu/degrees/economics-bs/)
  - # Finance (BBA) (https://www.tarleton.edu/degrees/finance-bba/)
  - # Accounting (MAcc) (https://www.tarleton.edu/degrees/accounting-ma/)
- Department of Management (https://www.tarleton.edu/mgmt/)
  - # Applied Science (BS) (https://www.tarleton.edu/degrees/applied-science-bs/)
  - # Business (BAAS) (https://www.tarleton.edu/degrees/business-baas/)
  - # General Business (BBA) (https://www.tarleton.edu/degrees/general-business-bba/)
  - # Human Resources Management (BBA) (https://www.tarleton.edu/degrees/human-resources-management-bba/)
  - # International Business (BBA) (https://www.tarleton.edu/degrees/international-business-bba/)
  - # Management (BBA) (https://www.tarleton.edu/degrees/management-bba/)
  - # Business Administration (MBA) (https://www.tarleton.edu/degrees/business-masters-mba/)
  - # Human Resources Management (MS) (https://www.tarleton.edu/degrees/human-resources-management-ms/)
  - # Logistics and Supply Chain Management (MS) (https://www.tarleton.edu/degrees/logistics-and-supply-chain-management-ms/)
  - # Management (MS) (https://www.tarleton.edu/degrees/management-ms/)
- Department of Marketing and Computer Information Systems (https://www.tarleton.edu/mcis/)
  - # Marketing (MS) (https://www.tarleton.edu/degrees/marketing-ms/)
  - # Marketing (BBA) (https://www.tarleton.edu/degrees/marketing-bba/)
  - # Management Information Systems (BBA) (https://www.tarleton.edu/degrees/computer-information-systems-bba/)
  - # Computer Information Systems (BS) (https://www.tarleton.edu/degrees/computer-information-systems-bs/)
  - # Information Technology (BAAS) (https://www.tarleton.edu/degrees/information-technology-baas/)
  - # Information Systems (MS) (https://www.tarleton.edu/degrees/information-systems-ms/)

College of Education

College of Education *(*https://www.tarleton.edu/coe/*)*

- Department of Counseling (https://www.tarleton.edu/counsel/)
  - # Clinical Mental Health Counseling (MS) (https://www.tarleton.edu/degrees/clinical-mental-health-counseling-ms/)
  - # School Mental Health Counseling (MS) (https://programs.tarleton.edu/school-mental-health-counseling-ms/)
  - # Counseling (PhD) (https://programs.tarleton.edu/doctor-of-philosophy-in-counseling/)
- Department of Curriculum and Instruction (https://www.tarleton.edu/teachered/)
  - # Elementary Teacher Education (BS) (https://www.tarleton.edu/degrees/elementary-teacher-education-bs/)
  - # Curriculum and Instruction (MEd) (https://www.tarleton.edu/degrees/curriculum-and-instruction-med/)
  - # Secondary Teacher Education (BS)
- Department of Educational Leadership and Technology (https://www.tarleton.edu/edlt/)
  - # Educational Administration (MEd) (https://www.tarleton.edu/degrees/educational-administration-med/)
  - # Educational Leadership (EdD) (https://www.tarleton.edu/degrees/educational-leadership-edd/)
- Department of Psychological Sciences (https://www.tarleton.edu/psychology/)

    - # Psychology (https://www.tarleton.edu/degrees/psychology-bs/)
    - # Applied Psychology (MS) (https://www.tarleton.edu/degrees/applied-psychology-ms/)
    - # School Psychology (SSP) (https://programs.tarleton.edu/specialist-in-school-psychology-ms/)
    - # Experimental Psychology (PhD) (https://programs.tarleton.edu/doctor-of-philosophy-in-experimental-psychology/)
- Division of Child and Family Studies (https://www.tarleton.edu/chfs/)
    - # Child Development and Family Studies (BAAS) (https://www.tarleton.edu/degrees/cdfs-baas/)
    - # Child Development and Family Studies (BS) (https://www.tarleton.edu/degrees/child-development-and-family-studies-bs/)
    - # Child Development and Family Studies (MS) (https://www.tarleton.edu/degrees/child-development-and-family-studies-ms/)
- Division of Sociology (https://www.tarleton.edu/sociology/)
    - # Applied Sociology (BS) (https://www.tarleton.edu/degrees/sociology-bs/)

College of General and Applied Studies

College of General and Applied Studies

- # General Studies (BS) (https://www.tarleton.edu/degrees/general-studies-bs/)

Division of Health Sciences

Division of Health Sciences

- College of Health and Clinical Professions (https://www.tarleton.edu/shcp/)
    - # Physician Assistant Medicine (MMSc)
    - # Occupational Therapy (OTD) (https://www.tarleton.edu/degrees/doctorate-in-occupational-therapy-otd/)
    - # Physical Therapy (DPT) (https://programs.tarleton.edu/doctor-of-physical-thereapy-dpt/)
    - Department of Athletic Training and Communication Disorders
        - # Athletic Training (MSAT) (https://www.tarleton.edu/degrees/athletic-trainer-degree-msat/)
        - # Communication Sciences and Disorders (BS) (https://www.tarleton.edu/degrees/communication-sciences-disorders-bs/)
    - Department of Medical Laboratory Sciences and Nutrition Science (http://www.tarleton.edu/medicallab/)
        - # Histotechnology (AAS) (https://www.tarleton.edu/degrees/histotechnology-aas/)
        - # Medical Laboratory Technology (AAS) (https://www.tarleton.edu/degrees/medical-laboratory-technology-aas/)
        - # Health Professions Technology (BAT) (https://www.tarleton.edu/degrees/bat-health-professions-technology/)
        - # Medical Laboratory Science (BS) (https://www.tarleton.edu/degrees/medical-laboratory-science-bs/)
        - # Nutrition Science (BS) (https://www.tarleton.edu/degrees/nutrition-science-bs/)
        - # Medical Laboratory Science (MS) (https://www.tarleton.edu/degrees/medical-laboratory-science-ms/)
    - Department of Social Work and Public Health (http://www.tarleton.edu/socialwork/)
        - # Social Work (BSW) (https://www.tarleton.edu/degrees/social-work-bsw/)
        - # Social Work (BAAS) (https://www.tarleton.edu/degrees/social-work-baassw/)
        - # Social Work (MSW) (https://www.tarleton.edu/degrees/social-work-msw/)
        - # Public Health (BS) (https://www.tarleton.edu/degrees/public-health-bs/)
- College of Kinesiology and Sport Science (https://www.tarleton.edu/kinesiology/)
    - (https://www.tarleton.edu/kinesiology/)Department of Sport Professions
        - # Sport Management (BS) (https://www.tarleton.edu/degrees/sports-management-bs/)
        - # Sport Management (MS)
        - # Kinesiology (BS) (https://www.tarleton.edu/degrees/kinesiology-bs/)
        - # Kinesiology (BAAS) (https://www.tarleton.edu/degrees/kinesiology-baas/)
        - # Coaching and Sport Pedagogy (BS)
        - # Kinesiology (MS) (https://www.tarleton.edu/degrees/kinesiology-ms/)
    - Department of Health and Human Physiology (https://www.tarleton.edu/kinesiology/hhp/)
        - # Exercise and Sport Physiology (BS)
        - # Rehabilitation Science (MS)
        - # Exercise Science (MS)
        - # Health Science (BS) (https://programs.tarleton.edu/b-s-in-health-science/)
- College of Nursing (https://www.tarleton.edu/nursing/)
    - (https://www.tarleton.edu/nursing/)Department of Undergraduate Nursing Education (https://www.tarleton.edu/nursing/degrees/degrees-undergrad/)
        - # Nursing (BSN) (https://www.tarleton.edu/degrees/nursing-bsn/)
    - Department of Graduate Nursing Education (https://www.tarleton.edu/nursing/degrees/)
        - # Nursing Administration (MSN) (https://www.tarleton.edu/degrees/nursing-administration-msn/)
        - # Nursing Education (MSN) (https://www.tarleton.edu/degrees/nursing-education-msn/)

College of Leadership and Military Studies

College of Leadership and Military Studies

- Department of Leadership and Strategic Studies (https://www.tarleton.edu/colms/)
    - # Leadership and Strategic Studies (BA) (https://programs.tarleton.edu/leadership-and-strategic-studies-b-a/)
    - # Leadership and Strategic Studies (BS) (https://programs.tarleton.edu/leadership-and-strategic-studies-b-a-a-s/)
    - # Leadership and Strategic Studies (BAAS) (https://programs.tarleton.edu/leadership-and-strategic-studies-b-s/)

College of Liberal and Fine Arts

College of Liberal and Fine Arts

- Department of Communication Studies (https://www.tarleton.edu/communications/)
  - # Communication Studies (BS) (https://www.tarleton.edu/degrees/communication-studies-bs/)
  - # Communication Studies (BAAS) (https://programs.tarleton.edu/communication-studies-baas/)
  - # Communication Studies (MA) (https://www.tarleton.edu/degrees/communication-studies-ma/)
- Department of English and Languages (https://www.tarleton.edu/english/)
  - # English (BA) (https://www.tarleton.edu/degrees/english-ba/)
  - # Spanish (BA) (https://www.tarleton.edu/degrees/spanish-ba/)
  - # English (MA) (https://www.tarleton.edu/degrees/english-ma/)
- Department of Performing Arts (https://www.tarleton.edu/performingarts/)
  - # Music (BA) (https://www.tarleton.edu/degrees/music-ba/)
  - # Music (BM) (https://www.tarleton.edu/degrees/music-bm/)
  - # Theatre (BFA) (https://www.tarleton.edu/degrees/theatre-bfa/)
  - # Music Education (MM) (https://www.tarleton.edu/degrees/music-education-mm/)
- Department of Visual Arts and Design (https://www.tarleton.edu/visualarts/)
  - # Art (BFA) (https://www.tarleton.edu/degrees/art-bfa/)
  - # Digital Media Studies (BS) (https://www.tarleton.edu/degrees/digital-media-studies-bs/)
- Department of Government, Legal Studies, and Philosophy (https://www.tarleton.edu/glsp/)
  - # Legal Studies (BA) (https://www.tarleton.edu/degrees/legal-studies-ba/)
  - # Legal Studies (BS) (https://www.tarleton.edu/degrees/legal-studies-bs/)
  - # Political Science (BA) (https://www.tarleton.edu/degrees/political-science-ba/)
  - # Political Science (BS (https://www.tarleton.edu/degrees/political-science-bs/)
- Department of History, Geography, and GIS (https://www.tarleton.edu/hggs/)
  - # Geography and Geographic Information Systems (BS) (https://www.tarleton.edu/degrees/geography-geographic-information-systems-bs/)
  - # Geographic Information Systems (BAAS) (https://www.tarleton.edu/degrees/geographic-information-systems-baas/)
  - # History (BA) (https://www.tarleton.edu/degrees/history-ba/)
- School of Criminology, Criminal Justice, and P (http://www.tarleton.edu/criminology/)ublic Administration (http://www.tarleton.edu/criminology/)
  - Department of (http://www.tarleton.edu/criminaljustice/)Public Administration (https://www.tarleton.edu/publicadmin/)
    - # Public Administration (MPA) (https://www.tarleton.edu/degrees/mpa/)
    - # Public Administration (BS) (https://www.tarleton.edu/degrees/public-administration-bs/)
    - # Public Administration (BAAS) (https://www.tarleton.edu/degrees/public-administration-baas/)
  - Department of Criminal Justice (https://www.tarleton.edu/criminaljustice/)
    - # Criminal Justice (BS) (https://www.tarleton.edu/degrees/criminal-justice-bs/)
    - # Criminal Justice Administration (BAAS) (https://www.tarleton.edu/degrees/criminal-justice-administration-baas/)
    - # Criminal Justice (MCJ) (https://www.tarleton.edu/degrees/criminal-justice-mcj/)
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Mayfield College of Engineering

Mayfield College of Engineering

- Department of Computer Science and Electrical Engineering (https://www.tarleton.edu/csee/)
  - # Artificial Intelligence and Machine Learning (BS) (https://programs.tarleton.edu/artificial-intelligence-and-machine-learning-bs/)
  - # Artificial Intelligence and Machine Learning (MS) (https://programs.tarleton.edu/artificial-intelligence-machine-learning-ms/)
  - # Computer Engineering (MS) (https://www.tarleton.edu/degrees/computer-engineering-ms/)
  - # Electrical Engineering (BS) (https://www.tarleton.edu/degrees/electrical-engineering-bs/)
  - # Computer Science (BS) (https://www.tarleton.edu/degrees/computer-science-bs/)
- Department of (https://www.tarleton.edu/mece/) M (https://www.tarleton.edu/csee/)echanical, Environmental, and Civil Engineering (https://www.tarleton.edu/mece/)
  - # Civil Engineering (BS) (https://www.tarleton.edu/degrees/civil-engineering-bs/)
  - # Civil Engineering (MS) (https://programs.tarleton.edu/civil-engineering-ms/)
  - # Environmental Engineering (BS) (https://www.tarleton.edu/degrees/environmental-engineering-bs/)
  - # Mechanical Engineering (BS) (https://www.tarleton.edu/degrees/mechanical-engineering-bs/)
  - # Mechanical Engineering (MS) (https://www.tarleton.edu/degrees/mechanical-engineering-ms/)
- Department of Engineering Technology (https://www.tarleton.edu/engtech/)
  - # Construction Science and Management (BS) (https://www.tarleton.edu/degrees/construction-science-management-bs/)
  - # Construction Science and Management (BAS) (https://www.tarleton.edu/engtech/bas-construction/)
  - # Construction Science and Management (MS) (https://www.tarleton.edu/degrees/construction-science-management-ms/)
  - # Industrial Technology (BS) (https://www.tarleton.edu/degrees/industrial-technology-bs/)
  - # Manufacturing Engineering Technology (BS) (https://www.tarleton.edu/degrees/mechanical-engineering-technology-bs/)
  - # Manufacturing Engineering Technology (BAAS) (https://www.tarleton.edu/degrees/manufacturing-engineering-technology-baas/)
  - # Manufacturing and Industrial Management (BAAS) (https://www.tarleton.edu/degrees/manufacturing-industrial-management-baas/)
  - # Quality and Engineering Management (MS) (https://www.tarleton.edu/degrees/quality-engineering-management-ms/)

College of Science and Mathematics

College of Science and Mathematics

- Department of Biological Sciences (https://www.tarleton.edu/biology/)
  - # Biology (BS) (https://www.tarleton.edu/degrees/biology-bs/)
  - # Biomedical Science (BS) (https://www.tarleton.edu/degrees/biomedical-science-bs/)
  - # Biology (MS) (https://www.tarleton.edu/degrees/biology-ms/)
  - # Biotechnology (BS) (https://www.tarleton.edu/degrees/biomedical-science-bs/)
- Department of Chemistry, Geoscience, and Physics (https://www.tarleton.edu/chgp/)
  - # Chemistry (BS) (https://www.tarleton.edu/degrees/chemistry-bs/)
  - # Environmental Science (BS) (https://www.tarleton.edu/degrees/environmental-science-bs/)
  - # Geoscience (BS) (https://www.tarleton.edu/degrees/geoscience-bs/)
  - # Physics (BS) (https://www.tarleton.edu/degrees/physics-bs/)
  - # Environmental Science (MS) (https://www.tarleton.edu/degrees/environmental-science-ms/)
- Department of Mathematics (https://www.tarleton.edu/math/)
  - # Mathematics (BS) (https://www.tarleton.edu/degrees/mathematics-bs/)
  - # Mathematics (MS) (https://www.tarleton.edu/degrees/mathematics-ms/)
  - # Statistics (BS) (https://www.tarleton.edu/degrees/statistics-bs/)
  - # Data Science (MS) (https://www.tarleton.edu/degrees/data-science-ms/)
- Department of Neuroscience (https://www.tarleton.edu/neuroscience/)
  - # Neuroscience (BS) (https://www.tarleton.edu/degrees/neuroscience/)

Academic Minors

Undergraduate Minors

Tarleton State University offers the following minors. Up to two minors may be declared in most baccalaureate degree programs. In order to preserve the curricular integrity of minors as distinct content areas, all minors must have nine hours that are distinct from the curriculum of the student's major.

The first list of minors are those requiring a minimum of 18 hours within the minor discipline, of which 6 hours must consist of upper level coursework completed at Tarleton State University.

The second list of minors below are those with options or other requirements in addition to the 18 hours (of which at least 6 must be advanced). These have specific requirements; students should review the appropriate section of the catalog and check with Academic Advising Services or other academic advisor before beginning a minor from this list.

Minors with a Minimum of 18 Hours

Minor	Prefix
Accounting	ACC
Aerospace Engineering	AERO
Agricultural Communication	ACOM
Agricultural Mechanics	AGME
Animal Science	ANSC
Art	ARTS
Art History	ARTH
Automotive Engineering	AUTO
Biology	BIOL
Chemistry	CHEM
Child Development and Family Studies	CHFS
Civil Engineering	CVEN
Coaching	CHNG
Criminal Justice	CRIJ
Criminal Law	CLAW
Conservation Law Enforcement	CLEO
Communication Sciences and Disorders	CSDO
Construction Science and Management	CNST
Communication Studies	COMS
Computer Information Systems	CIS
Computer Science	COSC
Counseling	CNSL
Dance	DANC
Digital Media Studies	DIGM
Ecological Restoration	PCON
Economics	ECO
Electrical Engineering	ELEN
English	ENGL
Entomology	ENTO
Environmental Engineering	ENVE
Environmental Science	ENVS
Finance	FINC
Financial Planning	FINP
Fisheries Management	FISH
Fraud Examination	FREX
Geology	GEOL
Gerontology	GERS
History	HIST
Histotechnology	HTEC
Homeland Security	HLSE
Horticulture Management	HRTM
Horticulture Science	HRTS
Kinesiology	KINE
Leadership Studies	LDRS
Legal Studies	LEGL
Management	MGMT
Marketing	MKTG
Mechanical Engineering	MEEN
Music Business	MBUS
Neuroscience	NEUR
Philosophy	PHIL
Political Science	POLS
Psychology	PSYC
Public Health	PBHL
Public Policy	PBPL

Real Estate	REST
Social Work	SOCW
Sociology	SOCI
Spanish	SPAN
Substance Abuse	SAMH
Veterinary Science	VTSC

Minors with Other Requirements in Addition to the 18 Hours

Minor	Prefix
Business	BUS
Mathematics	MATH
Military Science	MS
Music	MUSC
Technical Writing	TWRT
Wildlife, Sustainability and Ecosystem Sciences	WSES
Crop Science*	CRSC
Ecosystem Science*	ECSC
Food and Nutrition*	FONU
International Natural Resource Conservation*	INRC
Natural Resource Ecology*	NRE
Soil Science*	SOIL
Wildlife Management*	WLDM

* These are options under the WSES minor and may require courses with prefixes other than WSES.

Undergraduate Admissions

Cindy Hess
Director of Undergraduate Admissions
Tarleton Center
Box T-0030
Stephenville, Texas 76402
(800) 687-8236 or (254) 968-9125
(254) 968-9951
admissions@tarleton.edu
www.tarleton.edu/admissions (http://www.tarleton.edu/admissions/)

Admission to The Texas A&M University System and any of its sponsored programs is open to qualified individuals, regardless of race, color, religion, sex, national origin, or educationally unrelated disabilities.

Materials Needed for Application

1. Students should submit only **one** application for admission. The application will arrive to Tarleton State within two business days. Please allow 3-5 business days for processing (processing may be longer during peak seasons):
   - ApplyTexas (https://goapplytexas.org/)
   - Tarleton State Application (https://tarletonstate.force.com/undergrad/)
   - Common App (https://www.commonapp.org/)
2. $50 *non-refundable* application fee or fee waiver documentation
3. Official transcripts from all high school/colleges previously attended (transcripts submitted by the student or parent/guardian are not official)

Optional: SAT/ACT test scores (www.collegeboard.org (https://nam11.safelinks.protection.outlook.com/?url=http%3A%2F%2Fwww.collegeboard.org%2F&data=05%7C01%7CVNEWELL%40tarleton.edu%7Cc2f20532ec484a4443fa08db2013669f%7C2c5ee638a96349c0ac26828dd9b78d5e%7C0%7C0%7C638139039909528594%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=1a%2FPB5lHpBpS4ePxxu1fJTea%2FWyzGiftZW0n85Tn9pM%3D&reserved=0) or www.act.org (https://nam11.safelinks.protection.outlook.com/?url=http%3A%2F%2Fwww.act.org%2F&data=05%7C01%7CVNEWELL%40tarleton.edu%7Cc2f20532ec484a4443fa08db2013669f%7C2c5ee638a96349c0ac26828dd9b78d5e%7C0%7C0%7C638139039909528594%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=McB15ERXy8SkILLg%2B%2BkoJtqELxSPm2K8cof%2BoYFYqKM%3D&reserved=0)). Scores can be submitted for individual review for students ranked in the bottom half of their class, TSI exemption and/or scholarship purposes. Test scores should be no more than six years old at the time of admission.

Items 1-3 above must be received before an application can be evaluated. Other documents may be requested if clarification is needed based on answers to application questions, transcript contents or residency determination. Please review sections below regarding specific requirements for items listed above.

Application Deadlines

Materials should be on file well in advance of registration to allow time for processing. Documents are processed in the order they are received. Deadlines could be extended since there are multiple start dates within each fall, spring and summer term. Please refer to our application deadlines (https://www.tarleton.edu/admissions/steps-to-apply.html) for further information.
If a student would like to change their semester of entry, they must complete the Change of Semester Request Form (https://www.tarleton.edu/admissions/admission-forms/#change-semester) for review. Official documents received for a previous term may be added to the new application. If a student has completed coursework since applying with Tarleton State, they must provide final official transcript(s).

Application Fee

Students applying for admission to Tarleton State are required to pay a non-refundable application processing fee of $50. Credit card payments can be made at the time of electronic submission of their application or in the Tarleton State payment portal (https://epay.tarleton.edu/C20203_ustores/web/store_main.jsp?STOREID=11). Tarleton State accepts fee waivers (https://www.tarleton.edu/admissions/fee-waiver.html) if students meet qualifications.

Official High School Transcripts

A freshman applicant who **has not graduated from high school** at the time of application must request from their high school an official transcript indicating grades, projected high school graduation program, projected graduation date, GPA and class rank (if available) to be sent to us.

A freshman applicant who **has graduated from high school** at the time of application and transfer applicants with less than 12 semester hours of college credit must request from their high school an official transcript that includes date of graduation to be sent to us. The transcript must also include GPA and rank (if available) and designation of high school graduation program.

GPA and class rank (if available) should be calculated at the end of the 11th grade, middle of the 12th grade, or high school graduation, whichever is most recent when the application is submitted.

If an applicant is admitted based on a transcript from the end of 11th grade (6th semester) or mid-12th grade (7th semester), they must request an official final transcript from their high school after graduation and have it sent to us. The final transcript must include:

- Final GPA and class rank (if available)
- Graduation date (not a certificate of completion date)
- A school seal (if mailed) and indicate the completed high school program

If the transcript only shows a certificate of completion, the admission decision and any financial aid will be revoked.

Students admitted for summer or fall must submit their final transcript before registering for the spring semester. A registration and transcript hold will remain on the student's record until the transcript is received. Similarly, students admitted for spring must submit their final transcript before registering for summer or fall.

To avoid delays and ensure eligibility for Texas Grant consideration, students should submit their final transcript as soon as possible after graduation.

To be considered official if mailed from the school, the transcript must bear an original signature of a school official and an original school seal. Transcripts may be sent by the high school counselor through their electronic system or email. **Scanned/emailed copies from the student are not official.**

Foreign transcripts must be evaluated by a NACES (https://www.naces.org/members/) or AICE (https://aice-eval.org/members/) approved foreign credentials evaluation service and must include GPA and rank when applicable. The service must send the evaluation directly to Tarleton State University, Box T-0030, Stephenville, TX 76402 or by email to admissions@tarleton.edu

Official SAT or ACT test scores

SAT/ACT test scores are optional but are encouraged for individual review, scholarships or TSI exemption.
Official SAT and ACT test scores must be sent directly from the testing agency. Tarleton State will not accept test scores from the high school.

Tarleton State's SAT code is 6817, www.collegeboard.org
Tarleton State's ACT code is 4204, www.act.org

Official College Transcripts

An official transcript is required from every institutionally accredited (as recognized by the Department of Education) post-secondary institution attended, even if the applicant did not earn course credit, did not receive a course grade or if the course is not transferable. Coursework from college(s) posted on the transcript of another college will not satisfy this requirement.

For readmission to Tarleton State, only those transcripts from institutions attended since the last enrollment at Tarleton State are required; however, transcripts from all institutions on file will be reviewed for readmission purposes.

For post-baccalaureate students, only the official transcript reflecting the awarding of a bachelor degree is required.

Faxed copies are not official. Electronic transcripts are considered official transcripts and can be sent through SPEEDE/EDI, eSCRIP-SAFE, Parchment, National Student Clearinghouse and Greenlight. If an email address is required for the request, please use transfer@tarleton.edu. Check with sending institution for availability. Electronic transcripts take 24 to 48 hours to be received from sending institution.

If your transcript cannot be released from your previous school(s) due to transcript holds, you must have those holds cleared and provide an official transcript once your obligations have been satisfied.

Foreign transcripts must be evaluated by a NACES (https://www.naces.org/members/) or AICE (https://aice-eval.org/members/) approved foreign credential evaluation service and must show the course by course evaluation, including GPA and rank when applicable. The service must send the evaluation directly to Tarleton State University, Box T-0030, Stephenville, TX 76402 or by email to transfer@tarleton.edu.

Mathematics Placement Policy

The Department of Mathematics has established the following policy for placement into mathematics courses.

Placement Path 1 (using the NextGen AAF):

- Take the NextGen AAF at any testing site (or remotely)
- Have the score sent to Tarleton (if the NextGen AAF is not taken at the Tarleton Testing Center)

Placement scores:

- 276 or higher – can be placed into MATH 2413 (Calculus I)
- 265 or higher – can be placed into MATH 2412 (Precalculus)
- 260 or higher – can be placed into MATH 1316 (Plane Trigonometry) or into MATH 1325 (Math for Business & Social Sciences II)

Notes:

- Scores on the NextGen AAF are out of a maximum of 300.
- Tested Objectives for the NextGen AAF and previously released practice questions are available for free from the College Board. We encourage students to review the objectives and familiarize themselves with the practice problems prior to taking the NextGen AAF.
  - Here is a link to a document with released questions from the College Board: Advanced Algebra and Functions (collegeboard.org) (https://nam11.safelinks.protection.outlook.com/?url=https%3A%2F%2Faccuplacer.collegeboard.org%2Faccuplacer%2Fpdf%2Fnext-generation-sample-questions-advanced-algebra-and-functions.pdf&data=05%7C01%7CERIGGS%40tarleton.edu%7C20e89f47cfb5460359a308dac9749ca7%7C2c5ee638a96349c0ac26828dd9b78d5e%7C0%7C0%7C638043799921694732%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=vvxJPABbE8F3Mdzobin2qBHQV9bD5PleawhvOXmHBrw%3D&reserved=0).
  - Here is the web address for the document in the event that the link does not work: https://accuplacer.collegeboard.org/accuplacer/pdf/next-generation-sample-questions-advanced-algebra-and-functions.pdf
- The NextGen AAF may only be taken one time. If the student is not satisfied with the score on the NextGen AAF, then the student can pursue another placement path.
- The NextGen AAF can be taken at the Tarleton Testing Center (or remotely through the Tarleton Testing Center) at no cost to the student if the student has been admitted to Tarleton State University. There may be a testing fee if the student chooses a testing site outside of Tarleton.

Placement Path 2 (using ALEKS):

- Take an initial diagnostic assessment through ALEKS
- Spend 10 hours in the ALEKS modules based on your performance
- Take another assessment through ALEKS – this attempt will be your official “placement test”
  - If you are satisfied with your performance, then you are done. (See the placement scores below.)
  - If you are not satisfied with your performance, then spend another 10 hours in the ALEKS modules based on your performance, then take another assessment through ALEKS.
  - You may continue this cycle for up to 5 total assessments through ALEKS (including the initial diagnostic assessment).

Placement scores:

- 76 or higher – can be placed into MATH 2413 (Calculus I)
- 61 or higher – can be placed into MATH 2412 (Precalculus)
- 61 or higher – can be placed into MATH 1316 (Plane Trigonometry) or into MATH 1325 (Math for Business & Social Sciences II)

Notes:

- Scores on the mathematics assessments through ALEKS are out of a maximum of 100.
- ALEKS assessments are taken remotely using online proctoring software. Contact your academic advisor for more information.
- For more information about ALEKS, please see the following: https://www.mheducation.com/highered/alekspplhtml.
- Some programs may require a different number of hours in the ALEKS modules between assessments. See your academic advisor for more information.

Placement Path 3 (using AP Calculus scores):

If a student has AP Calculus Scores, then the student can earn **course credit** based on AP scores in the following way (as posted on Tarleton’s Admissions website at https://www.tarleton.edu/admissions/course-credit/):

- 4 or 5 on the AP Calculus AB Exam – credit for MATH 2413 (Calculus I)
- 3 on the AP Calculus BC Exam with an AB sub-score of 4 – credit for MATH 2413 (Calculus I)
- 4 or 5 on the AP Calculus BC Exam – credit for both MATH 2413 (Calculus I) and MATH 2414 (Calculus II)

AP Scores can also be used for **placement** as follows:

- 3 or higher on the AP Calculus AB Exam – can be placed into MATH 2413 (Calculus I)
- 3 or higher on the AB sub-score within the AP Calculus BC Exam – can be placed into MATH 2413 (Calculus I)

Notes:

- Below 3 on the AP Calculus AB Exam – no placement decision based on this data, but the student can take another placement path like the NextGen AAF or ALEKS if desired
- Below a 3 on the AB sub-score within the AP Calculus BC Exam – no placement decision based on this data, but the student can take another placement path like the NextGen AAF or ALEKS if desired
- If a student has scores that give course credit for either MATH 2413 (Calculus I) or MATH 2414 (Calculus II), but the student wishes to actually take the course here, then the student can be placed into Calculus I or II accordingly.
- If a program calls for MATH 1314, MATH 1316, MATH 1324, MATH 1325, MATH 1332, or MATH 2412, but the student has credit through an AP test for MATH 2413 or MATH 2414, then we can substitute MATH 2413 or MATH 2414 for the course from the list above so that the student does not have to take the lower course. Contact your academic advisor for more information.

Placement Path 4 (using AP Precalculus scores):

If a student comes in with an AP Precalculus score, then the student can earn **course credit** as follows:

- 4 or 5 on the AP Precalculus Exam – credit for MATH 2412 (Precalculus)

AP Precalculus scores can be used for **placement** as follows:

- 3 or higher on the AP Precalculus Exam – can be placed into MATH 2412 (Precalculus) or MATH 1316 (Plane Trigonometry)

Notes:

- Below 3 on the AP Precalculus Exam – no placement decision based on this data, but the student can take another placement path like the NextGen AAF or ALEKS if desired
- If a student has scores that give course credit for MATH 2412 (Precalculus), but the student wishes to actually take the course here, then the student can be placed into Precalculus accordingly.
- If a program calls for MATH 1314, MATH 1316, MATH 1324, MATH 1325, or MATH 1332, but the student has credit through an AP test for MATH 2412, then we can substitute MATH 2412 for the course from the list above so that the student does not have to take the lower course. Contact your academic advisor for more information.

First-time Freshmen Admission Requirements

First-time freshman have the option to attend the Stephenville and Fort Worth campuses. First-time freshman may also attend the Waco and Online campuses as long as (in addition to meeting freshman admission requirements) they have completed 12 transferable college credits with a 2.25 GPA. First-time freshman can apply for the Texas A&M-RELLIS campus but must complete lower level courses at Blinn College.

Students with no college credit completed in a long semester since graduating from high school or entering Tarleton State from a Texas public high school accredited by the Texas Education Agency, a Texas non-public school accredited by the Texas Private School Accreditation Commission or an accredited out-of-state high school are considered first-time freshmen at the time of application. To be granted **Regular Admission** a first-time freshman attending Texas public high school must meet the State of Texas Uniform Admission Policy*.

Regular Admission

Please review rank and high school curriculum requirements below to determine your admissions decision:

Class Rank	High School Curriculum	Admission Decision
Top 50% (50-100 Percentile)*	Foundation High School Program with an Endorsement or the Distinguished Level of Achievement	Automatic Admission
25-49%*	Foundation High School Program with an Endorsement or the Distinguished Level of Achievement	Individual Review

*For non-ranking high schools, the unweighted GPA will be evaluated.

SAT/ACT scores are not required for an admission decision but encouraged for those seeking scholarships. For students being considered for admission under individual review, ACT/SAT scores could assist in the decision process.

Early Admission Consideration

Students who rank in the top 50% and have completed their junior year may request their high school to send an official high school transcript for early admission consideration.

State of Texas Uniform Admission Policy (UAP)

The Texas Education Code (TEC) 51.803-51.809 requires that all students meet one of the following college readiness standards to be considered for admission to a Texas Four-Year Public Institution.

- Recommended or Distinguished High School Program OR
- Foundation High School Program with an Endorsement or Distinguished Level of Achievement OR
- Satisfy the College Readiness Benchmarks on the ACT or SAT assessment.
  - Old SAT: 1500 out of 2400 (Critical Reading, Math, and Writing)
  - New SAT: 1090 out of 1600 (Evidence-Based Reading, Writing, and Math)
  - ACT: 18 English, 21 Reading, 22 Math, and 24 Science

Students not meeting these requirements will be individually reviewed.

High School Equivalency Diploma (GED, HiSET, TASC)

High School Equivalency Diploma scores (GED, HiSET, TASC) will be considered equivalent to a high school diploma, provided the average score meets the following:

- GED, before January 2014 - 55 average scores and no subscore less than 50
- GED, January 2014 and after - 170 average scores and no subscore less than 160
- HiSET - 15 score on each exam section, 4 Essay score
- TASC - 560 Math, 580 Reading, 560 and 6 on Essay

An official copy of the GED scores must be submitted. Applicants may submit official SAT or ACT scores with a minimum score of 950 on the Old SAT (critical reading + math) or 1030 on the New SAT or a 20 on the ACT.

Home-Schooled or Non-Accredited High School Graduates

Admission will be determined based on a home school applicant's GPA. Home schooled students must provide proof of curriculum completed from an agency or teacher. Home school transcripts must be notarized. For an early admission decision, a transcript can be submitted after the student's junior year or midway through their senior year. Upon graduation, a final high school transcript must be submitted. See Official High School Transcripts above.

Students Above the Age of 23

Admission will be determined on an individual review based on a resume.

Special Admission Programs

Special admission programs require applicants to be near the requirements for regular admission to be considered. Requirements are evaluated each year. Applicants for any special admission program must be within a few months of high school graduation. Students who are eligible for a special admission program will be contacted by the Undergraduate Admissions Office by email and asked to complete an agreement before being allowed to attend Tarleton State. The agreement may specify course and grade requirements, may restrict the number of hours to be taken, and may be more restrictive than certain university rules such as the Warning/Probation/Suspension policy. Students should review all agreement conditions carefully before signing as students who fail to meet conditions in the agreement may not be allowed to re-enroll at Tarleton State until they succeed academically at another institution and meet Tarleton State's transfer requirements. The number of students granted for special admission programs may be limited by the Division of Enrollment Management without prior notice.

International Baccalaureate Diploma Program

Beginning freshman applicants to Tarleton State University who have completed or who will complete the International Baccalaureate Diploma (IBD) Program from their high school should indicate that on the application. Those who complete the IBD and meet State of Texas requirements will be granted credit for a minimum of 24 semester hours. Students should ensure the Director of Undergraduate Admissions is aware of the IBD Program and may request from the Director the type and amount of credit Tarleton State University is willing to grant based on the IBD transcript.

Tarleton State University grants credit for IB higher level exams with a score of 5 or higher and for some standard level exams with specified scores of 5 or higher. A list of credit equivalents and required scores is in the Non-Standard Baccalaureate Level Credit section for certain higher level and standard level exam. Student may inquire about equivalent credit for higher level exams not listed if the score is 5 or higher. State law requires that students who present evidence of completion of the IB diploma may be granted credit for exam scores of at least 4. This can result in the awarding of up to 24 credit hours.

Limited Admission for Outstanding High School Students

Tarleton State University will consider limited admission for outstanding high school students after they have met and/or have submitted the following:

1. completed their sophomore year of high school ranked in the top quarter of their graduating class or have a GPA of a 3.67 or better on a 4.0 GPA scale
2. provide a letter of recommendation from their high school principal or counselor addressing student's maturity and academic capabilities
3. provide a letter of consent from a parent or legal guardian
4. successfully complete all sections of a TSI assessment or have obtained a TSI exemption prior to course registration

These criteria are for outstanding students in exceptional, accelerated circumstances.
All documentation will be reviewed by Academic Affairs and may require a face-to-face meeting. Contact Undergraduate Admissions with any questions.

Individual Approval Admissions

Students who are denied admission to Tarleton State University may request to be considered for individual approval. If the case has sufficient merit, it will be referred to the Appeals Committee. Appeals (https://www.tarleton.edu/admissions/freshman-admissions-appeals/) will be considered in cases of extenuating circumstances. An appeal will not be considered for applicants who are ineligible to return to a previous institution.

Freshman appeal requests (https://www.tarleton.edu/admissions/freshman-admissions-appeals/) should be submitted to the Office of Undergraduate Admissions no later than two weeks before the first class day for that semester. Exceptions to this deadline must be approved by the Division of Enrollment Management. Transfer appeal requests should be submitted to transfer@tarleton.edu.

Credit by Exam

Tarleton State University accepts credit by exam toward a baccalaureate degree from approved sources. Credit by exam sources include College-Level Exam Preparation (CLEP), Advanced Placement (AP), SAT and ACT and International Baccalaureate Organization (IBO). When credit by exam is awarded, it is not included in the overall enrollment for a given semester.

Tarleton State University students may earn course credit by demonstrated achievement on standardized tests. Students should check with the Office of Undergraduate Admissions for subject areas in which Tarleton State University awards credit. Credit awarded for College Level Examination Program (CLEP) and Advanced Placement (AP) scores on transcripts from public universities or colleges in Texas will be accepted. Students may receive credit for courses and scores in effect at the time they enter Tarleton State University. A student may earn credit by examination in the following ways:

1. Depending on subject, scores ranging from a minimum 50 to 66 for the Subject Examination of the CLEP (credit is not available for the General Examinations);
2. A minimum score of 3 on the AP Examination;
3. If CLEP tests are not available in a desired testing area, local departmentally prepared examinations may be petitioned. To be eligible for local testing, a student must have:
   a. a minimum score of 1000 on the SAT or 21 on the ACT and
   b. completed at least two units with no grade below a B in the area of testing during high school; or have special permission from the department head;
4. A score of 33 on the Reading section of the SAT or 28 on the English section of the ACT.

CLEP Credit

Courses Available	Code for Posting	Type of Examination	Name of Test	Score Required	Hours Awarded
ACCT 2301: Princ of Accounting I - Financial	CL09	CLP Examination	Principles of Accounting I - Financial	50	3
BIOL 1406: General Biology	CL01	CLP Examination	General Biology	50	4
CHEM 1411: General Chemistry I	CL02	CLP Examination	General Chemistry	50	4
BCIS 1305: Business Computer App.	CL03	CLP Examination	Information Systems & Computer Applications	50	3
ECON 2301: Princ of Economics	CL04	CLP Examination	Macroeconomics	50	3
ECON 2302: Princ of Economics	CL05	CLP Examination	Principles of Microeconomics	50	3
ENGL 1301 & 1302: College Composition	CL31	CLP Examination	College Composition	50	6
FREN 1411 & 1412: Beginning French	CL76	CLP Examination	College French	50	8
FREN 1411, 1412, 2311 & 2312: Beginning & Inter. French	CL76	CLP Examination	College French	66	14
BLAW 4332: Business Law	CL08	CLP Examination	Intro Business Law	50	3
GERM 1411 & 1412: Beginning German	CL75	CLP Examination	German Language	50	8
GERM 1411, 1412, 2311 & 2312: Beginning & Inter. German	CL75	CLP Examination	College German	66	14
GOVT 2305: American Govt	CL10	CLP Examination	American Govt	50	3
HIST 2321: Worl History	CL11	CLP Examination	Western Civilization I	50	3
HIST 2322: World History	CL12	CLP Examination	Western Civilization II	50	3
HIST 1301: History of US I	CL13	CLP Examination	U.S. History I	50	3
HIST 1302: History of the US II	CL14	CLP Examination	U.S. History II	50	3
MATH 1314: College Algebra	CL16	CLP Examination	College Algebra	50	3
MATH 1332: Contemporary Mathematics I	CL 32	CLP Examination	College Mathematics	50	3
MATH 2412: PreCalculus	CL29	CLP Examination	Precalculus	50	4
MATH 2413: Calculus I	CL18	CLP Examination	Calculus	50	4
MGMT 2301: Principles of Management	CL19	CLP Examination	Principles of Management	50	3
MKTG 2314: Marketing	CL20	CLP Examination	Principles of Marketing	50	3
PSYC 2301: General Psychology	CL21	CLP Examination	Introductory Psychology	50	3
SOCI 1301: Intro to Sociology	CL22	CLP Examination	Introductory Sociology	50	3
SPAN 1411 & 1412: Beginning Spanish	CL77	CLP Examination	College Spanish	50	8
SPAN 1411, 1412, 2311 & 2312: Beginning and Inter. Spanish	CL77	CLP Examination	College Spanish	66	14

AP Credit

Courses Available	Code for Posting	Type of Examination	Name of Test	Score Required	Hours Awarded
ARTS 1303: Art History I	AP01	Advanced Placement	History of Art	3	3
BIOL 1406: General Biology	AP02	Advanced Placement	Biology	3	4
CHEM 1411: General Chemistry I	AP35	Advanced Placement	Chemistry	3	4
CHEM 1411 & 1412: General Chemistry I & II	AP35	Advanced Placement	Chemistry	4 or 5	8
BCIS 1305: Business Computer App.	AP04	Advanced Placement	Computer Science A or AB	3	3
BCIS 1305: Business Computer App.	AP28	Advanced Placement	Computer Science A	3	3
ECON 2301: Princ of Economics	AP31	Advanced Placement	Macroeconomics	3	3
ECON 2302: Princ of Economics	AP30	Advanced Placement	Microeconomics	3	3

ENGL 1301: Composition I	AP05	Advanced Placement	Language & Composition	3	3
ENGL 2320: Intro to Literature	AP06	Advanced Placement	Literature & Composition	3	3
FREN 1411 Beginning French	AP97	Advanced Placement	French Language & Culture	2	4
FREN 1411 & 1412 Beginning French	AP97	Advanced Placement	French Language & Culture	3	8
FREN 1411, 1412, & 2311 Beginning & Inter. French	AP97	Advanced Placement	French Language & Culture	4	11
FREN 1411, 1412, 2311, & 2312 Beginning & Inter. French	AP97	Advanced Placement	French Language & Culture	5	14
GEOL 1407: Intro to Environmental Science	AP26	Advanced Placement	Environmental Science	3	4
GERM 1411 Beginning German	AP98	Advanced Placement	German Language& Culture	2	4
GERM 1411 & 1412 Beginning German	AP98	Advanced Placement	German Language& Culture	3	8
GERM 1411, 1412 &, 2311 Beginning & Inter. German	AP98	Advanced Placement	German Language& Culture	4	11
GERM 1411, 1412, 2311 & 2312 Beginning & Inter. German	AP98	Advanced Placement	German Language& Culture	5	14
GOVT 2305: American Govt	AP10	Advanced Placement	Government & Politics: US	3	3
HIST 2321: World History	AP56	Advanced Placement	World History	3	3
HIST 2321 & 2322: World History	AP56	Advanced Placement	World History	4 or 5	6
HIST 2321 & 2322: World History	AP11	Advanced Placement	European History	3	6
HIST 1301 & 1302: History of the US	AP12	Advanced Placement	American/US History	3	6
MATH 2412: Pre-Calculus	AP39	Advanced Placement	Pre-Calculus	4	4
MATH 2413: Calculus I	AP13	Advanced Placement	Calculus AB	4 or 5	4
MATH 2413: Calculus I	AP38	Advanced Placement	Calculus BC	3 and AB Sub-score 4	4
MATH 2413, MATH 2414 Calculus I & II	AP33	Advanced Placement	Calculus BC	4 or 5	8
MATH 1342: Statistics	AP34	Advanced Placement	Statistics	3	3
MUSC 1311: Music Theory	AP32	Advanced Placement	Music Theory	3	3
PHYS 1401: Physics I	AP41	Advanced Placement	Physics I	4 or 5	4
PHYS 1402: Physics II	AP42	Advanced Placement	Physics II	4 or 5	4
PHYS 2425: Principles of Physics	AP15	Advanced Placement	Physics C: Mechanics	3	4
PSYC 2301 General Psychology	AP40	Advanced Placement	Psychology	3	3
SPAN 1411 Spanish	AP99	Advanced Placement	Spanish Language & Culture	2	4
SPAN 1411 & 1412 Beginning Spanish	AP99	Advanced Placement	Spanish Language & Culture	3	8
SPAN 1411, 1412 & 2311 Beginning & Inter. Spanish	AP99	Advanced Placement	Spanish Language & Culture	4	11
SPAN 1411, 1412, 2311 & 2312 Beginning & Inter. Spanish	AP99	Advanced Placement	Spanish Language & Culture	5	14

ACT/SAT Credit

Courses Available	Code for Posting	Type of Examination	Name of Test	Score Required	Hours Awarded
BIOL 1406: General Biology		SAT II Subject Examination	Biology	580	4
CHEM 1411: General Chemistry I		SAT II Subject Examination	Chemistry	600	4
ENGL 1301: Composition		SAT Reading	SAT I Reasoning Examination	33	3
ENGL 1301: Composition I		ACT English	ACT Examination	28	3
ENGL 2320: British Literature		SAT II Subject Examination		600	3
FREN 1411 & 1412: Beginning French		SAT II Subject Examination	French Language	570	8

GERM 1411 & 1412: Beginning German	SAT II Subject Examination	German (Reading Only)	540	8
HIST 2321 & 2322: World History	SAT II Subject Examination	World History	560	6
HIST 1301 & 1302: History of the US	SAT II Subject Examination	American History & Social Studies	540	6
PHYS 1401 & 1402: General Physics	SAT II Subject Examination	Physics	630	8
SPAN 1411 & 1412: Spanish	SAT II Subject Examination	Spanish (Reading Only)	540	8

Students taking departmental local examinations are charged a $5.00 per credit hour examination and recording fee for the credit to become a part of their academic records. Advanced placement in a subject area may be granted by the department head concerned. Permitting advanced placement does not necessarily mean approval for credit by examination. All acceptable credit earned by examination will be posted to the student's permanent record if the student is enrolled at Tarleton State University through the official census date. Students should consult the Office of Undergraduate Admissions for specific information. The credit will be recorded with a grade of P (Pass) and the hours awarded. There will be no grade points assigned for this credit, the credit will not count toward residency required for graduation and it will not be used in the computation for any grade point ratio.

International Baccalaureate Organization Credit

Students who complete the IBO diploma with certain minimum scores are guaranteed acceptance of at least 24 hours of credit. This may exceed the hours regularly granted based on individual exam results. It is recommended that any student in the IBO program who anticipates applying to Tarleton State see the Admissions section of this catalog and contact the Office of Undergraduate Admissions for details.

Tarleton State University grants credit for IB higher level exams with a score of 5 or higher and for some standard level exams with specified scores of a 5 or higher. A list of credit equivalents and required scores is listed below for certain higher level and standard level exams. Students may inquire about the equivalent credit for higher level exams not listed if the score is a 5 or higher. State law requires that students who present evidence of completion of the IB diploma may be granted credit for exam scores of at least 4. This can result in the awarding of at least 24 hours of credit.

IBO Higher Exam

Course	Grade	Course Credit	Credit Hours
Biology	5, 6,7	BIOL 1406, 1407	8
Business & Org.	5, 6, 7	FINC 3301, MGMT 3301	6
Chemistry	5, 6, 7	CHEM 1411, 1402	8
Economics	5, 6, 7	ECON 2301, 2302	6
English	5, 6, 7	ENGL 1301, 1302	6
French	5	FREN 1411, 1412	8
French	6, 7	FREN 1411, 1412, 2311, 2312	14
Geography	5, 6, 7	GEOG 1303	3
German	5	GERM 1411, 1412	8
German	6, 7	GERM 1411, 1412, 2311, 2312	14
History, U.S.	5, 6, 7	HIST 1301, 1302	6
Math-Analysis & Approaches	4	MATH 2412 or MATH 1324	4 or 3
Math-Analysis & Approaches	5, 6, 7	MATH 2413 or MATH 1325	4 or 3
Math-Applications & Interpretations	4	MATH 2412 or MATH 1324	4 or 3
Math-Applications & Interpretations	5, 6, 7	MATH 2413 or MATH 1325	4 or 3
Music	5, 6, 7	MUSI 1311, 1312	5
Philosophy	5, 6, 7	PHIL 1301	3
Physics	5, 6, 7	PHYS 1401, 1402	8
Psychology	5, 6, 7	PSYC 2301	3
Spanish	5	SPAN 1411, 1412	8
Spanish	6, 7	SPAN 1411, 1412, 2311, 2312	14
Theatre Arts	5, 6, 7	DRAM 1310	3

IBO Standard Exam

Course	Grade	Course Credit	Credit Hours
Art	5, 6, 7	ARTS 1301	3
Biology	6, 7	BIOL 1406, 1407	8
Chemistry	6, 7	CHEM 1411, 1412	8
Computer Science	6, 7	BCIS 1305	3
Economics	6, 7	ECON 2301, 2302	6
French	5	FREN 1411, 1412	8
French	6, 7	FREN 1411, 1412, 2311, 2312	14
German	5	GERM 1411, 1412	8
German	6, 7	GERM 1411, 1412, 2311, 2312	14
Math-Analysis & Approaches	4, 5	MATH 2412 or Math 1324	4 or 3
Math-Analysis & Approaches	6, 7	MATH 2413 or MATH 1325	4 or 3
Math-Applications & Interpretations	4, 5	MATH 2412 or MATH 1324	4 or 3
Math-Applications & Interpretations	6, 7	MATH 2413 or MATH 1325	4 or 3
Math Stud.	6	MATH 1314, 1316	6
Math Stud.	7	MATH 1316, 2413	7
Music	7	MUSI 1311, 1312	6
Philosophy	6, 7	PHIL 1301	3
Physics	6, 7	PHYS 1401, 1402	8

Psychology	6, 7	PSYC 2301	3
Spanish	5	SPAN 1411, 1412	8
Spanish	6, 7	SPAN 1411, 1412, 2311, 2312	14
Theatre Arts	5, 6, 7	DRAM 1310	3

American Council on Education (ACE)

Tarleton State University will accept undergraduate academic coursework recommended by the American Council on Education (ACE). Students are required to submit an official transcript from the educational company along with an official ACE evaluation. Based on ACE recommendations, courses will be articulated as lower or upper level credit. Courses designated as vocational will not be articulated. When possible, courses will match a course offered by Tarleton State University. If not possible, the course will be designated as not matching a course and the student will seek departmental approval for specific degree fulfillment.

Military Credit

The Office of Transfer Services, operating as part of Undergraduate Admissions at Tarleton State University, evaluates and articulates military credit with the following methods:

1. Evaluation of Joint Services transcripts and Community College of the Air Force transcripts during the admissions process.
   - Credit awarded based on ACE recommendations and nature of course (i.e. electrical maintenance versus personnel supervision).
   - Where possible, ACE recommended credits transfer as direct matches to Tarleton State courses.

Students with vocational credit based on military experience are encouraged to explore our BSAS, BAS and BAAS degree options.

Credit for Prior Learning

Credit for prior learning may be awarded for technical/vocational courses, documented employer training, continuing education credit, and certifications. This type of credit will only count toward certain specialized degree programs and the conditions for acceptance and maximum applicable hours are covered by the particular degree requirements. These types of prior learning credit may not be counted toward traditional BA, BS, BBA, or similar undergraduate degrees. Students are encouraged to speak with an academic advisor regarding credit for prior learning.

Texas Success Initiative (TSI)

The Texas Education Code statute 51.3062, Success Initiative, effective September 1, 2003, requires the university to assess the academic skills of each entering undergraduate student to determine the student's readiness to enroll in freshman-level academic coursework. The fee for the completion of the assessment instrument will be paid by the student. The university will not use the assessment or the results of the assessment as a condition of admission to the institution.

Unless exempt (see below), the Texas Higher Education Coordinating Board requires that, prior to enrollment, each student must be assessed in three skill areas (reading, writing, and mathematics) using the TSI Assessment.

Additionally, unless exempt (see below), each student is subject to the provisions of Tarleton's Texas Success Initiative (TSI) Plan. A copy of the TSI Plan is available from Student Development and Mentoring (https://www.tarleton.edu/sdm/) or 254-968-0766.

Further details are outlined in TSI Resources (https://www.tarleton.edu/admissions/tsi/).

TSI Exemptions

The following students shall be either fully exempt, partially exempt, or temporarily exempt/waived from the requirements of the TSI*:

Full Exemption: The following students are exempt from the requirements of the TSI

1. For a period of five (5) years from the date of testing, a student who is tested and performs at or above the following standards on a single administration of the test:
   - ACT: composite score of 23 with a minimum of 19 on both the English and Mathematics tests.
   - ACT administered on or after February 15, 2023: a combined score of 40 on the English and Reading (E + R) tests shall be exempt for both reading and writing or ELAR sections of the TSI.
   - ACT administered on or after February 15, 2023: a score of a 22 on the Math portion shall exempt them for math portion of the TSI.
   - New SAT: Evidence Based Reading/Writing of 480 and Math of 530:
   - GED: A minimum score of 165 on the Reasoning Through Language Arts (RLA) subject test shall be exempt for English Language Arts Reading (ELAR).
   - GED: A minimum score of 165 on the Mathematical Reasoning subject test shall be exempt for mathematics.
2. For a period of five (5) years from the date of testing, a student who is tested and performs at or above the following standards:
   - STAAR end of course (EOC) a minimum score on Algebra II of a 4000 and a minimum score of 2000 on English III (Reading) and a minimum score of 2000 on English III (Writing).
3. A student who has graduated with an associate or baccalaureate degree from a Texas public institution of higher education.
4. A student who has graduated with a baccalaureate degree from an institutionally accredited (as recognized by the Department of Education) private, independent, or out-of-state institution of higher education and who has satisfactorily completed appropriate college-level coursework as determined by the University.
5. A student who transfers to Tarleton State from an institutionally accredited (as recognized by the Department of Education) private, independent, or out-of-state institution of higher education and who has satisfactorily completed college-level coursework in:
   - mathematics
   - writing
   - reading as indicated in Section 8 of the TSI Plan
6. A student who has previously attended any Texas public institution of higher education and met TSI readiness standards by that institution in:
   - mathematics
   - writing
   - reading
7. A student who on or after August 1, 1990, was honorably discharged, retired, or released from active duty as a member of the armed forces of the United States or the Texas National Guard or service as a member of a reserve component of the armed forces of the United States.
8. A student who, prior to January 1, 2004, had satisfied (as indicated by the Tarleton Developmental Education Plan and/or the Board's THEA policy manual) all THEA obligations.
9. Partial Exemption (see below).
10. Public Safety Personnel

- Certain public officers or employees are exempt from the TSI requirement:
  - Certified Medical Technician (EMT) and employed by a political subdivison (https://www.tarleton.edu/admissions/tsi/#PSS) or
  - Fire Protection Personnel (https://www.tarleton.edu/admissions/tsi/#PSS) or
  - Elected, appointed or employed to serve as a peace officer

The following students are exempt from one or more of the requirement of the TSI:

Exempt from the Mathematics requirements of the TSI:

1. For a period of five (5) years from the date of testing, a student who is tested and performs at or above the following standards on a single administration of the test:
   - ACT: composite score of 23 with a minimum of 19 on Mathematics test.
   - ACT administered after February 15, 2023, score a 22 on Mathematics test.
   - New SAT: Math of 530
2. For a period of five (5) years from the date of testing, a student who is tested and performs at or above the following standard:
   - STAAR end of course (EOC) a minimum score of 4000 on Algebra II.
3. A student who transfers to Tarleton State from an institutionally accredited (as recognized by the Department of Education) private, independent, or out-of-state institution of higher education and who has satisfactorily completed college-level coursework in mathematics, as indicated in Section 8 of the TSI Plan.
4. Student who has previously attended any Texas public institution of higher education and met TSI readiness standards by that institution in mathematics.

Exempt from the Writing requirements of the TSI:

1. For a period of five (5) years from the date of testing, a student who is tested and performs at or above the following standards on a single administration of the test:
   - ACT: composite score of 23 with a minimum of 19 on English test.
   - New SAT: Evidence Based Reading/Writing of 480
2. For a period of five (5) years from the date of testing, a student who is tested and performs at or above the following standards:
   - STAAR end of course (EOC) a minimum score of 2000 on English III (g).
3. ACT administered on or after February 15, 2023: a combined score of 40 on the English and Reading (E + R) tests shall be exempt for both reading and writing or ELAR sections of the TSI.
4. A student who transfers to Tarleton State from an institutionally accredited (as recognized by the Department of Education) private, independent, or out-of-state institution of higher education and who has satisfactorily completed college-level coursework in writing, as indicated in Section 8 of the TSI Plan.
5. Student who has previously attended any Texas public institution of higher education and met TSI readiness standards by that institution in writing.

Exempt from the Reading requirements of the TSI:

1. For a period of five (5) years from the date of testing, a student who is tested and performs at or above the following standards on a single administration of the test:
   - ACT: composite score of 23 with a minimum of 19 on English test;
   - New SAT: Evidence Based Reading/Writing of 480
2. For a period of five (5) years from the date of testing, a student who is tested and performs at or above the following standard:
   - STAAR end of course (EOC) a minimum score of 2000 on English III (Reading).
3. ACT administered on or after February 15, 2023: a combined score of 40 on the English and Reading (E + R) tests shall be exempt for both reading and writing or ELAR sections of the TSI.
4. A student who transfers to Tarleton State from an institutionally accredited (as recognized by the Department of Education) private, independent, or out-of-state institution of higher education and who has satisfactorily completed college-level coursework in reading, as indicated in Section 8 of the TSI Plan.
5. Student who has previously attended any Texas public institution of higher education and met TSI readiness standards by that institution in reading.

Temporary Exemption/Waiver. The following students may request a temporary exempt from the requirements of the TSI:

- On an annual basis, a student who is serving on active duty as a member of:
  - the armed forces of the United States; or
  - the Texas National Guard.
- On an annual basis, a student who is a member of a reserve component of the armed forces of the United States (excludes reserves of Texas National Guard)
- Each semester, a student who has been admitted as a non-degree seeking student.
- Under exceptional circumstances, Student Learning and Success Initiatives may permit a student to enroll in lower-level academic coursework without assessment but must require that the student be assessed no later than the end of the first semester of enrollment in freshman-level academic coursework and may require concurrent, appropriate developmental education.

* Some of the TSI exemptions for enrollment in Tarleton State University are not accepted by the Teacher Education Council for admission to the Teacher Education Program. Please contact the Certification Office at (254) 968-9815 for more information.

TSI assessment results and/or proof of exemption must be submitted to the Student Assessment Coordinator's office before a student will be allowed to register for classes. To verify that your assessment results and/or proof of exemption have been received by Tarleton, contact the Student Assessment Coordinator at (254) 968-9125, (800) 687-8236, or admissions@tarleton.edu.

Immunizations

Bacterial Meningitis (requirement for all students under the age of 22)

Pursuant to Texas legislation, all entering (new) or returning (didn't attend for a long semester) students under the age of 22 at an institution of higher education must show evidence of receipt of an initial bacterial meningitis vaccination dose or booster during the five-year period preceding and at least 10 days prior to the first day of the first semester in which the student initially enrolls at an institution. This information shall be maintained in accordance with Family Education Rights and Privacy Act Regulations and with Health Insurance Portability and Accountability Act. Students will submit their proof of vaccination through their myGateway account and submit their document to Med+Proctor (an external vendor that reviews the records). Bacterial Meningitis Info (http://www.tarleton.edu/admissions/bacterial-meningitis.html) guidelines and exemptions can be reviewed on our website.

Requirements (for students enrolling in health-related programs)

For students enrolling in health-related programs should contact the specific departments for immunization requirements.

Social Security Number Disclosure

Section 7(b) of the Privacy Act of 1974 (5 U.S.C. 552a) requires that when any federal, state, or local government agency requests an individual to disclose his/her social security account number (SSAN), that individual must also be advised whether that disclosure is mandatory or voluntary, by what statutory or other authority the number is solicited, and what uses will be made of it.

Accordingly, applicants for admission are advised that disclosure of a student's SSAN is strongly recommended for admission as a student at Tarleton State University, in view of the practical administrative difficulties that would be encountered in maintaining adequate student records without continued use of the SSAN. It is used to verify the identity of the student, and as a student account number (identifier) to record necessary data accurately. As an identifier, the SSAN is used for such activities as determining and recording eligibility for admission as a student; reporting initial physical examinations; determining and recording assessments and payments of student fees and charges; determining and recording eligibility for student financial assistance including loans, scholarships, grants, allowances, and official student travel and per diem; recording student grades and related academic data; determining and recording eligibility for participation in Reserve Officers Training Corps programs and in athletic, rodeo, and similar events; registering private vehicles and issuing parking permits; issuing student identification cards; recording issue and return of library books and other materials; registering for placement services, including resume preparation and furnishing information to prospective employers; and other such related requirements that might arise. Tarleton State University has for several years consistently requested disclosure of the SSAN on student application forms and other necessary student forms and documents used pursuant to statutes passed by the State of Texas and United States and regulations adopted by agencies of the State of Texas and United States, and by the Board of Regents of The Texas A&M University System.

If a student chooses not to disclose the SSAN, he/she may request a random number to be assigned to the student's records while attending Tarleton State University. The student should contact the Office of Undergraduate Admissions for more details.

Conduct Disclosure Questions

The following conduct questions are included in the admissions application for undergraduate and graduate student in accordance with System Regulation 11.99.02, *Conduct Requirements for Admissions Applications and Transcripts:*

1. Have you ever been convicted of a crime or crimes, excluding juvenile adjudications, involving acts of violence or sexual misconduct including, but not limited to: criminal homicide (murder or non-negligent manslaughter); sexual assault (rape, fondling, incest, or statutory rape); robbery; aggravated assault; simple assault; arson; destruction/damage/vandalism of property; domestic violence; dating violence; or stalking?
2. Are you currently under investigation or subject to pending conduct charges from any post-secondary institution for conduct involving acts of violence or sexual misconduct including, but not limited to: criminal homicide (murder or non-negligent manslaughter); sexual assault (rape, fondling, incest, or statutory rape); robbery; aggravated assault; simple assault; arson; destruction/damage/vandalism of property; domestic violence; dating violence; or stalking?
3. Have you ever had any substantiated conduct findings against you at any post-secondary institution for conduct involving acts acts of violence or sexual misconduct including, but not limited to: criminal homicide (murder or non-negligent manslaughter); sexual assault (rape, fondling, incest, or statutory rape); robbery; aggravated assault; simple assault; arson; destruction/damage/vandalism of property; domestic violence; dating violence; or stalking?
4. Have you ever been suspended or expelled from any post-secondary institution for conduct involving acts of violence or sexual misconduct including, but not limited to: criminal homicide (murder or non-negligent manslaughter); sexual assault (rape, fondling, incest, or statutory rape); robbery; aggravated assault; simple assault; arson; destruction/damage/vandalism of property; domestic violence; dating violence; or stalking?

Any affirmative answer will require a student to complete a Conduct Disclosure Form which is then reviewed by the Conduct Review Committee to determine eligibility to continue the process for admission to the university.

International Students

Admission of international students to the undergraduate program at Tarleton is based upon graduation from a secondary school system equivalent to at least 12 grades (lyceum, senior middle school, high school, preparatory school, or other equivalent). Applicants must provide evaluations of all academic work. Foreign transcripts must be evaluated by a NACES (https://www.naces.org/members.php) or AICE (https://aice-eval.org/members/) approved foreign credentials evaluation service and must show the course-by-course evaluation, including GPA and rank when applicable. The service must send the evaluation directly to Tarleton State University, Box T-0030, Stephenville, TX 76402 or by email to admissions@tarleton.edu.

The Office of Undergraduate Admissions performs authentication of student admissions materials and required identification. Immigration documentation is reviewed by the International Student Services office. A primary Restricted Party Screening (RPS) is performed by the International Student Services office for all foreign nationals seeking enrollment to the university with a secondary screening by University Compliance (UC), as needed. UC will seek guidance from the empowered official (EO) and/or System Research and Security Office (RSO) as needed for resolution of concerns and for decision-making regarding admission approval. Foreign persons will not be enrolled in the university until they have been cleared through the export control screening process. Fall and Spring admission are available for Undergraduate International applicants. Because of the more limited availability of face-to-face courses in the summer session, international student applications will generally not be accepted except for those majoring in Medical Laboratory Science (where face-to-face summer course availability is assured). Students other than MLS majors may request approval from their departmental advisor if summer courses are available for the required 12 hours of enrollment (9 of which must be face-to-face), as required by Student Exchange and Visitor Program (SEVP). It is not recommended that international students begin classes during summer as they will struggle to find course offerings and might struggle academically due to the course demands during shorter terms.

The quality of the applicant's prior secondary or collegiate-level work is judged from the scores attained. SAT or ACT scores are optional but are encouraged for individual review, scholarships or TSI exemption. International applicants may be admitted if they have a score of 1030 or above on the SAT or 20 or above on the ACT.

Undergraduate applicants may demonstrate required English proficiency (https://www.tarleton.edu/admissions/international-applicants/) by providing satisfactory TOEFL, IELTS, PTE, iTEP, TOEFL ITP Plus for China, DuoLingo, TOEFL Essentials scores or The Language Company.

- Test of English as a Foreign Language (TOEFL), administered by the Educational Testing Service, is required with a minimum score of 69 on the Internet-based test (3.5 on IBT beginning January 21, 2026) or a minimum score of 520 on the paper-based test
- International English Language Testing System (IELTS) minimum score is a 6
- TOEFL ITP Plus for China minimum score is 460
- PTE minimum score is 50. The iTEP minimum scores is 3.5-3.9
- DuoLingo minimum score is 100
- TOEFL Essentials minimum score is a 7
- The Language Company level 9 completion

*TOEFL and IELTS scores expire 3 years from the test date. PTE and DuoLingo scores expire 2 years from the test date.

Completion of six semester hours at an accredited college in the United States of college level English which must include ENGL 1301 or 1302 and the other 3 hours can be a sophomore level English course that is academic in nature. Credit cannot be developmental or remedial and a course grade must be a "C" or better. Additional English proficiency (https://www.tarleton.edu/admissions/international-applicants/) qualifications or exemptions may also be accepted upon review.

To obtain a visa from the American Embassy located in the applicant's country, a prospective student must have documented evidence of financial solvency. A sponsor is obligated to endorse all expenditures for the applicant during the entire course of study. Note that a copy of all financial statement documentation must

be submitted to the International Student Services office at internationalstudents@tarleton.edu. After a review and determination that financial requirements are met, the International Student Services office will provide the student with an I-20 for F-1 visa consideration. Check with your local American Embassy for further details on how to apply for a visa.

International applicants must submit a $50 (U.S.) non-refundable application fee at the point of application and a one-time $100 (U.S.) international student fee on the tuition bill. Application fee payments must be made by credit card on the electronic application. Tarleton State University requires that all international students have medical insurance with coverage in the United States. Fees for health insurance (https://www.tarleton.edu/admissions/international/policies-guidelines.html) will be charged with tuition at the time of registration after full admission per the Texas A&M University System policy.

A primary Restricted Party Screening (RPS) is performed by the International Student Services office for all foreign nationals seeking admission to the university with a secondary screening by Compliance and Strategic Initiatives (CSI), as needed. CSI will seek guidance from the empowered official (EO) and/or System Research and Security Office (RSO) as needed for resolution of concerns and for decision-making regarding admission approval. Foreign persons will not be admitted to the university until they have been cleared through the export control screening process.

All required documents must be sent to the International Student Services office at internationalstudents@tarleton.edu. The I-20 will be issued only after a formal admission letter has been issued by Tarleton State University. The I-20 will be emailed to the email address provided on the admissions application. All undergraduate students are required to meet Texas Success Initiative (TSI) assessment before registering for classes. For more details about admission of international students, contact the International Student Services office at internationalstudents@tarleton.edu or call 254-968-9632.

Transfer Student Requirements

Students who have attempted/completed (or withdrawn with a record) college level credit at an institutionally accredited (as recognized by the Department of Education) institution in the spring or fall after high school graduation (or completion of a GED) are considered transfer students. Students taking course credit in the summer immediately after high school graduation will be considered first-time freshmen until they complete a fall or spring semester of higher education. Applicants must be eligible to enroll at all colleges and universities previously attended (i.e.not on suspension) and submit final official transcripts from each college or university attended. If a student's transcript reflects Academic Suspension, the student must request documentation from that institution with a statement that they are eligible to return to that institution. For students who have previously attended Tarleton State University, transfer work and Tarleton State work will be combined to determine a cumulative GPA. Developmental, non-college credit, vocational or technical coursework is not used in determining the GPA needed to be eligible for transfer admission.
Transfer Equivalency Guides, Texas Common Course Numbering System Equivalency Guides, Common Core Equivalency Guides are available for students transferring to Tarleton State University from a junior or community college. Please check with the Office of Transfer Services at 254-968-9125 or review the information on the Admissions website (https://www.tarleton.edu/admissions/).

For more information on transfer student requirements, please refer to Transfer Services (https://www.tarleton.edu/admissions/transfer/).

Transfer Student Qualifications

The following minimum standards must be met upon receipt of all admission documents and official transcripts from every institution a student has attended, which includes Tarleton hours and GPA:

1. Students with 24 or more semester hours of transferable academic college credit and a cumulative GPA of 2.0 or higher will be admitted.
2. Students with 12 to 23 semester hours of transferable academic college credit and a cumulative GPA of 2.5 or higher will be admitted. A cumulative GPA of 2.00 - 2.49 is acceptable, provided they also meet one of the regular admission standards for first-time freshman applicants (https://www.tarleton.edu/admissions/undergrads/)*.
3. Students with 11 or fewer semester hours of transferable academic college level credit and a cumulative GPA of 2.00 or higher who meet one of the regular admission standards for first-time freshman applicants* (https://www.tarleton.edu/admissions/undergrads/) will be admitted.

Students attending the Waco, Online or RELLIS-Bryan campus must meet these additional requirements:

- Complete a minimum of 24 hours of transferable academic college credit with an overall 2.0 GPA

* Please see the Admission Requirements for First-Time Freshman area in this section of the catalog.

Core Curriculum Transfer

Core curriculum courses students complete at another Texas public institution as approved by the Texas Higher Education Coordinating Board will transfer to Tarleton State University and satisfy the same core curriculum if noted on the official transcript.

Transfer Articulation Policies

Credits earned at an institutionally accredited (as recognized by the Department of Education) institution are accepted as recorded on the official transcript. However, because of differences in institutional degree requirements and course content, some credits transferred may not apply toward satisfying degree requirements at Tarleton State.

College level academic courses transferring from an institutionally accredited (as recognized by the Department of Education) institution which operates on a quarter system will be converted to semester credit hours. One quarter credit hour equals 2/3 of a semester credit hour. The total of the quarter credit hours per course will be rounded to the nearest whole number. For example, a four quarter credit hour course will transfer as a three semester credit hour course (4 X .67 = 2.68 rounded to 3).

If a course is completed at an institutionally accredited (as recognized by the Department of Education) institution and repeated at another institutionally accredited (as recognized by the Department of Education) institution (including Tarleton State), both courses will appear on the transcript with only the best effort being included in the GPA. Please contact Transfer Services at 254-968-9125 for more information.

Effective Spring 2004, all grades including F's, for all academic credit courses will be articulated to the Tarleton State transcript. The minimum grade accepted for credit is a D, however, some degrees require specific minimum grades. Please refer to the Academic Advising Guide for your degree for more information. Remedial/developmental courses will not be entered and will not be used in the admissions decision. Only those transferred hours that have been transcribed will be used to determine admissions eligibility.

Failing grades received in the spring of 2020 will be transcribed but excluded from the GPA.

Courses which are vocational or technical in nature are not automatically accepted by Tarleton State University. Students with a significant number of hours in a technical field and who wish to use those hours toward a Tarleton State degree should consider the Bachelor of Applied Arts and Sciences, Bachelor of Science in Applied Science, Bachelor of Applied Technology, or similar degree programs. Such students are expected to meet current admissions requirements and may wish to contact Academic Advising Services or departmental advisors for degree requirements.

Texas Common Course Numbering System (TCCNS)

A common numbering system has been devised by area colleges and universities to identify those courses that are similar in nature and considered to be equal in transfer. The purpose of the system is to assist students who are transferring between participating institutions. Visit Texas Common Course Numbering System (http://www.tccns.org/) for a more extensive list and to compare other institutions to Tarleton State.

If Tarleton State does not accept lower-division academic course credit earned by a student at another public institution of higher education in Texas, Tarleton State will give written notice to the student and the other institution that the transfer of the course credit is denied. The two institutions and the student shall attempt to resolve any dispute over the transfer of the course credit in accordance with Texas Higher Education Coordinating Board guidelines. If the dispute is not resolved to the satisfaction of the student and the institution at which the credit was earned, the student may file a Transfer Dispute Resolution form (CB-TDR) with Tarleton State. It must be submitted within 15 days of the date the student received written notification of the denial of credit. Tarleton State will forward a copy of the CB-TDR to the Commissioner of Higher Education who will resolve the dispute if necessary. In this instance, the Commissioner will give written notice to the student and institutions involved.

If you have questions regarding transfer-ability of courses, please contact the Office of Transfer Services at 254-968-9125, via email (transfer@tarleton.edu), or by viewing Transfer Services (http://www.tarleton.edu/admissions/transfer/).

Post-Baccalaureate Admission

A student who has a bachelor's degree from an an institutionally accredited (as recognized by the Department of Education) U.S. institution and who is in good standing at all schools previously attended but who is not seeking a master's degree or professional certification may apply as a post-baccalaureate student by using the transfer application at ApplyTexas (https://goapplytexas.org/) application (https://www.tarleton.edu/admissions/steps-to-apply/). A post-baccalaureate student may work on a second bachelor's degree or teaching certification or take courses of interest. A domestic applicant must submit an official transcript from the degree awarding institution to be admitted. If the student is seeking a degree and would like to use completed coursework from other institutions, official transcripts will need to be submitted. International students must submit an official evaluation from a NACES or AICE approved foreign credentials evaluation service from the degree awarding institution.

Readmission

Students who have previously attended Tarleton State and are returning after one or more long semester absence may apply for readmission. Applicants must submit an application for readmission.

1. Students who have not enrolled at any other college or university since last attending Tarleton State and are free of suspension will be admitted.
2. Students who have enrolled at any other institutionally accredited (as recognized by the Department of Education) college or university since last attending Tarleton State who meet transfer requirements and are free of suspension may be admitted. (See **Transfer Requirements** section).
3. Students who have been absent for one or more long semesters must reapply to Tarleton State for admission. This includes students who have been suspended for one or more semesters.

Transient Student

A transient student must be returning to their home institution immediately following attendance at Tarleton State University. A transient application (https://www.tarleton.edu/admissions/steps-to-apply/) and a $50 application fee is required. If a student chooses to continue enrollment at Tarleton State University after one semester, the student must submit a new transfer application and official transcripts from all schools previously attended before the student will be allowed to register for any subsequent semester.

Academic Fresh Start

If you are a Texas resident and apply for admission (or readmission) to Texas public colleges or universities, you may be able to begin a new course of study with a clear academic record.

If you have credits for college courses taken ten or more years prior to the planned enrollment date, those credits (and grades) can be ignored for enrollment purposes under the "Academic Fresh Start" Law.

Please remember: This is an all or nothing option. You cannot pick and choose which courses to ignore and which courses to count. If you choose the "Academic Fresh Start" option, you will not receive any credit for any course you took at least ten years ago.

This means that courses taken previously:

- Cannot be used to fulfill new prerequisite requirements;
- Cannot be counted toward your new degree; and
- Will not be counted in your new GPA calculations

Choosing the "Academic Fresh Start" option requires the completion of the usual admissions process. This includes providing information and transcripts from all institutionally accredited (as recognized by the Department of Education) colleges or universities previously attended.

Contact the Office of Transfer Services at (254) 968-9125 or Email us (transfer@tarleton.edu) for further information.

Holds on Registration and Release of Records

Any student who has failed to meet admission or academic requirements, or who has a financial obligation to the university, has a HOLD placed on their record. Until the hold is removed, such students are not allowed to register, obtain transcripts, graduate, or receive other services from the university. All new students will have a registration hold on their record until they are advised by Academic Advising Services (http://www.tarleton.edu/advising/) or their departmental advisor. Other holds include Bacterial Meningitis Vaccination and/or TSI. For further explanation of all university holds please visit Student Hold Information (https://www.tarleton.edu/registrar/registration/hold-info.html).

Residency Information for Tuition Purposes

Determination of residence for tuition purposes can be found in the Expenses (p. 410) section of the catalog. It is the student's responsibility to seek information about reclassification requirements if they were entered as a non-resident for tuition purposes upon application to the university. The burden of proof lies on the student to submit proper documentation to prove their domicile and presence in the state in accordance with state legislation.

University Calendar and Final Examination Schedules

***The Fall 2025, Spring 2026, and Summer 2026 Academic Calendar can be found on the Registrar's website*: https://www.tarleton.edu/registrar/academic-calendars/**

Academic Calendar Fall 2026-Spring 2027

Click here (https://catalog.tarleton.edu/universitycalendarsandfinalexaminationschedules/2025-2026_Detailed_Academic_Calendar.pdf) for Calendar PDF

(Any calendar is subject to change when it is determined to be in the best interest of the University to do so)

The RELLIS off-campus instructional site follows a different academic calendar. The calendar can be accessed on the RELLIS page.

Calendar subject to change as state, system, and local guidelines evolve in relation to COVID. Any updates will be posted at https://www.tarleton.edu/covid/

Event	Fall	Spring
	2026	**2027**
REGISTRATION	Term Dates: August 19 – December 18	Term Dates: January 14 – May 14
Graduate, Doctoral	March 26	October 29
Priority Registration	March 27	October 30
Seniors	March 30	November 3
Juniors	March 31	November 4
Sophomores	April 1	November 5
Freshman/Post-Baccalaureate	April 2	November 6
TUITION AND FEE PAYMENT DEADLINE	August	January
CLASSES BEGIN		
16 week & 1st 8 week Classes Begin	August 19	January 14
Late Registration and Add/Drop	August 19-26	January 14-21
2nd 8 week Classes Begin	October 19	March 11
2nd 8 week Late Registration and Add/Drop	October 19-20	March 11-12
3 week "Winter Mini"		December 21
DROP WITH NO RECORD (CENSUS)		
16 week	September 3	February 1
1st 8 week	August 26	January 22
2nd 8 week	October 28	March 29
3 week "Winter Mini"		December 21
Q DROP DEADLINE		
16 week		
1st 8 week		
2nd 8 week		
3 week "Winter Mini"		
WITHDRAWAL DEADLINE		
16 week	November 13	April 16
1st 8 week	September 25	February 26
2nd 8 week	November 30	April 30
3 week "Winter Mini"		January 5
MIDTERM GRADES DUE		
16 week	October 16	March 5
1st 8 week	September 16	February 5
2nd 8 week	November 5	April 2
FINAL EXAMS PERIOD		
16 week	December 9 - 15	May 5 - 11
1st 8 week	October 16	March 10
2nd 8 week	December 14	May 10
3 week "Winter Mini"		January 12
FINAL GRADES		
3 week "Winter Mini"		January by 14 by 5 pm
1st 8 week grades due	October 19 by 5 pm	March 12 by 5 pm
All grades due	December 16 by 5pm	May 12 by 5pm
GRADUATION AND RELATED REQUIREMENTS		
Graduation Application Deadlines	July 15 - September 15	November 15 - January 15
Commencement Weekend	December 18 - 19	May 14 - 15
HOLIDAY AND NO CLASS DAYS		
Labor Day (No classes - University Closed)	September 7	
Fall Break (No classes - University Open)	October 22 - 24	
Thanksgiving Break (No Classes - University Open)	November 25	
Thanksgiving Break (No Classes - University Closed)	November 26-28	
Winter Break (University Closed)	December 24-January 1	

Martin Luther King Day (No Classes - University Closed)	January 18
Spring Break - No Classes	March 15 - 20 (Mon-Sat)
University Closed	March 18-19
No Classes - University Open	March 25 - 27

Employee Holidays Schedule (https://www.tarleton.edu/human-resources/holiday-schedule/)

*Honors, Veterans, NCAA Athletes, Marching Band, Texan Reps, Diplomats, Corps of Cadets

Fall Semester 2026- Final Examination Schedule

Exam Date	8:00am - 10:00am	10:30am - 12:30pm	1:00pm - 3:00pm	3:30pm - 5:30pm	6:30pm - 8:30pm
Mon Dec 7			**Last Class Day**		
Tues Dec 8			**Reading Day**		
Wed Dec 9	MWF 9:05am/MW 9:30am	ENGL 1301, ENGL 1302	MWF 1:25pm	MATH 2412	F 6:30pm/Other MWF, M, W times not listed
Thurs Dec 10	TR 8:00am	TR 11:00am	TR 2:00pm	TR 3:30pm	TR 6:30pm
Fri Dec 11	MWF 10:10am, MW 11:00am	CHEM 1311, 1312, MATH 1342	MWF 2:00pm/MW 2:00pm	MWF 3:35pm/MW 3:30pm	MWF 7:55pm/MW 8:00pm/M 6:30pm
Mon Dec 14	MWF 8:00am/MW 8:00am	MWF 11:15am	MWF 12:20pm/MW 12:30pm	MWF 4:40pm/MW 5:00pm	MWF 6:50pm/MW 6:30pm/W 6:30pm
Tues Dec 15	TR 9:30am	TR 12:30pm	MATH 1314	TR 5:00pm	MWF 5:45pm/TR 8:00pm/ Other TR, T, R times not listed

Final Examinations are to be given only on scheduled examination days as printed on the Final Examination Schedule. At locations other than Stephenville, Fort Worth and online courses, the final examination will be given at a time designated by the instructor.

Any student with three or more final examinations on the same day may request of his/her instructors to take one of the final examinations on another day during the Final Examination Schedule.

Spring Semester 2027 – Final Examination Schedule

Exam Date	8:00am - 10:00am	10:30am - 12:30pm	1:00pm - 3:00pm	3:30pm - 5:30pm	6:30pm - 8:30pm
Mon May 3			**Last Class Day**		
Tues May 4			**Reading Day**		
Wed May 5	MWF 9:05am, MW 9:30am	ENGL 1301, 1302	MWF 1:25pm	MATH 2412	F 6:30pm, Other MWF, M, W times not listed on the exam schedule
Thurs May 6	TR 8:00am	TR 11:00am	TR 2:00pm	TR 3:30pm	TR 6:30pm
Fri May 7	MWF 10:10am, MW 11:00am	CHEM 1311, 1312, MATH 1342	MWF 2:30pm, MW 2:00pm	MWF 3:35pm, MW 3:30pm	MWF 7:55pm, MW 8:00pm, M 6:30pm
Mon May 10	MWF 8:00am, MW 8:00am	MWF 11:15am	MWF 12:20pm, MW 12:30pm	MWF 4:40pm, MW 5:00pm	MWF 6:50pm, MW 6:30pm, W 6:30pm
Tues May 11	TR 9:30am	TR 12:30pm	MATH 1314	TR 5:00pm	MWF 5:45pm, TR 8:00pm, Other TR, T, R times not listed on the exam schedule

Final Examinations are to be given only on scheduled examination days as printed on the Final Examination Schedule. At locations other than Stephenville, Fort Worth and online courses, the final examination will be given at a time designated by the instructor.

Any student with three or more final examinations on the same day may request of his/her instructors to take one of the final examinations on another day during the Final Examination Schedule.

Academic Calendar Summer 2027

(Any calendar is subject to change when it is determined to be in the best interest of the University to do so)

Event	Date
	Summer 2027
REGISTRATION	
Graduate, Doctoral	March 29
Priority Registration	March 30
Seniors	March 31
Juniors	April 1
Sophomores	April 2
Freshman/Post-Baccalaureate	April 5
TUITION AND PAYMENT DEADLINE	May
CLASSES BEGIN	
1st 5 week, 1st 10 week	May 24
1st 5 week, 1st 10 week Late Registration and Add/Drop	May 24-26
2nd 5 week	June 28
2nd 5 week Late Registration and Add/Drop	June 28-29
8 week	June 7
8 week Late Registration and Add/Drop	June 7-8
DROP WITH NO RECORD (CENSUS)	
1st 5 week	May 27
10 week	June 2

2nd 5 week	July 1
8 week	June 14
Q DROP DEADLINE	
1st 5 week	
10 week	
2nd 5 week	
8 week	
WITHDRAWAL "W" DEADLINE	
1st 5 week	June 11
10 week	July 16
2nd 5 week	July 16
8 week	July 16
LAST CLASS DAY (finals held on last class day)	
1st 5 week	June 25
2nd 5 week	July 29
10 week	July 29
8 week	July 29
FINAL GRADES	
All grades due	August 2 by 12 pm
GRADUATION AND RELATED REQUIREMENTS	
Graduation Application Deadlines	April 15 - June 15
Commencement Weekend	July 30-31
SUMMER HOLIDAY (NO CLASSES)	
Memorial Day (University closed)	May 31
Emancipation Day (University closed)	June 19 (Saturday)
Independence Day (University closed)	July 4 (Sunday)

*Honors, Veterans, NCAA Athletes, Marching Band, Texan Reps, Diplomats, Corps of Cadets

2025-2026 Event Calendar
(Dates pertain to the semester in which they appear below)

Deadlines and General Dates	Fall	Spring	Summer
	2025	2026	2026
Course Evaluations	TBA	TBA	TBA
Undergraduate Admission Application Deadline for Freshman	August 1	December 1	June 1
Undergraduate Admission Application Deadline for Transfer/Readmit	October 1	March 1	June 1
Undergraduate Admission Application Deadline for International Freshman and Transfer Students	June 15	November 1	March 15
Scholarship Application Priority Deadline administered by the University Scholarship Committee	February 15	December 1	
Last Day to apply to the Teacher Education Program	October 15	February 16	July 1
Last Day to apply for Clinical Teaching	September 30	February 3	
Restricted Activities Begin	December 2-10	May 5 - 13	
Service and Maintenance of electronic systems	December	May	August
University Events			
Service and Leadership Day; Option for faculty to dismiss in-person classes or transition to online to accommodate students participating in events		March	
Official University Ring Ceremony	September		
Family Weekend	September		
Homecoming	October		
College of Graduate Studies			
Deadline for submissions of the defended, final, committee-approved theses/dissertations to ProQuest and signed Thesis/Dissertation Format checklist to the College of Graduate Studies	November 1	April 1	July 1
Comprehensive Assessment results due to College of Graduate Studies	November 15	April 15	July 15
Residential Living and Learning			
Housing Application opens for incoming new and transfer students	September 12	October 20	April 1
Residence Halls close at 10 am for term (exceptions for graduating seniors)	December 11	May	July
Commencement			

Graduation Application Deadline	July 15 - September 15	November 15 - January 15	April 15 - June 15
Graduation Ceremonies	December 12 - 13	May 8 - 9	July 31 - August 1
New Student Programs			
Dates below are for the upcoming Fall 2026 term			
Texan Orientation	April 11		
Texan Orientation	April 18		
Texan Orientation	May 2		
Texan Orientation	June 13		
Texan Orientation	June 26		
Texan Orientation	July 10		
Texan Orientation	July 11		
Texan Orientation	July 18		
Duck Camps - FALL 2026			
Duck Camp 1	May 31-June 2		
Duck Camp 2	August 2-4		
Duck Camp 3	August 5-7		
Duck Camp 4	August 8-10		
Duck Camp 5	August 11-13		
New Student Move-In	August 16		
Transition Week	August 16-18		
Freshman Convocation and Candle Lighting Ceremony	August		

Academic Affairs

Academic Honesty

Tarleton State University expects its students to maintain high standards of personal and scholarly conduct. Students guilty of academic dishonesty are subject to disciplinary action. Academic dishonesty includes, but is not limited to, cheating on an examination or other academic work, plagiarism, collusion, and the abuse of resource materials. Faculty, staff, and students may report suspected cases of academic dishonesty, and the faculty member is responsible for initiating action for each case of academic dishonesty that occurs in his/her class.

Class Attendance

Class attendance is an important factor in student academic success, and each student should accept the responsibility of regular class attendance. Student absences for participation in university-sponsored events or those included under Title IX guidelines are excused absences, and students should be allowed to make up assignments and/or examinations. However, students are responsible for contacting the instructor in advance to provide written explanation for their absences from the faculty or staff members who are responsible for the activity.

For all other attendance-related concerns, the university considers student absences a matter between the individual student and faculty member. The faculty member has the responsibility and authority to determine whether a student may make assignments and/or examinations resulting from absences, consistent with the attendance policy in the faculty member's syllabus. Students may request makeup consideration for valid and verifiable reasons such as illness, death in the immediate family, or legal proceedings.

Students who wish to appeal the faculty member's decision concerning class absences may appeal through the academic appeals procedure.

Restricted Activities Period

A restricted activities period is enforced each long semester, beginning prior to the start of final examinations and continuing through the last day of final examinations. During the restricted activities period, no examinations may be administered other than finals, no major assignments may be due, and no student activities may be held.

Scholastic Honors

Dean's List Student Recognition

At the end of each fall and spring semester, students in good standing who have completed at least 12 credit hours through Tarleton State University and who have a GPA of 3.50 or higher on all credit through Tarleton State University for that semester shall be designated for Dean’s List honor.

Honors Classes and Honors Degrees

Tarleton offers honors classes in most general education subjects, including English, History, Political Science, Chemistry, Biology, Psychology, Economics, Philosophy, Mathematics and Speech. Honors classes offered in a particular semester are announced in the published course schedule and publicized via flyers and other campus publications.

Honors courses offer intellectually challenging material, innovative approaches to the subject, increased opportunities for honing critical thinking and writing skills, and the opportunity to interact closely with similarly motivated students and with outstanding faculty. Honors courses often have smaller limits on class size. To register for an honors class a student must be a current member of the Honor's College.

Official designation for honors classes will appear on the student’s permanent transcript. Any student who completes 15 or more hours of such classes with a minimum 3.0 GPA in honors classes as well as overall will receive recognition as an Honors Degree Program graduate.

Academic Appeals

Student academic appeals are handled according to the following guidelines:

1. Each department shall develop its own process for dealing with student grievances of an academic nature. Such policy should be in writing in the departmental office and available to students.
2. A student who wishes to appeal a decision of a faculty member or staff member of a department should ask for a review by that person within 60 days of the originating event unless the departmental procedures specifically allow additional time. The person is expected to give the student a response within 30 days. If the person is unavailable, if a response is not made within 30 days, or if the student is unsatisfied with the response, then the student should inform the department head of the appeal. For an appeal of a course grade, the originating event shall be considered to be the posting of the grade to the university record.
3. A student wishing to appeal a decision to the department head must do so within 120 days of the originating event unless the departmental procedures specifically give more time. The department head will review as specified by the departmental grievance procedures.
4. A student who is unsatisfied with the outcome of the departmental grievance process may appeal to the dean of the college within 30 days of the notification of the departmental decision. The dean will review the appeal and render a decision. The dean may require that the appeal be in writing.
5. A student unsatisfied with the decision of the dean may appeal in writing to the Provost within 30 days of notification of the decision of the college dean. The Provost (or designee) may decide that no further review is justified, may render a decision upon review, or may appoint a five-member committee to consider the appeal. The committee will consist of a faculty member from outside the involved department as chair, two other faculty members, and two student members. The committee will submit findings to the Provost (or designee), who shall render the final judgment.
6. Tarleton State University has been approved to participate in the National Council for State Authorization Reciprocity Agreements (NC-SARA). NC-SARA is a voluntary, regional approach to state oversight of postsecondary distance education. View the outlined NC-SARA student complaint process (https://nc-sara.org/sara-student-complaints-0/).

Warning, Probation, and Suspension

The following applies to all students unless more restrictive rules are included as part of special admission conditions or unless more restrictive rules have been approved for a program, department, or college.

The purpose of academic warning, probation and suspension is to make the student aware of the University’s concern that satisfactory progress is not being made in the course of study. Early notification of this concern maximizes the student’s opportunity to make appropriate adjustments that will result in remaining in good standing. A 2.0 total institution GPA is the lowest acceptable academic standard, as this level mirrors the minimum GPA requirement for graduation. The total institution GPA used in this policy is defined as the best attempt on all courses taken at Tarleton State University; grades on transfer work are excluded. A student with a 2.0 or better total institution GPA is considered to be in good academic standing.

Warning: Each student is responsible for knowing their academic status and the regulations that apply. Students who do not abide by the regulations governing their particular status may be required to reduce their academic loads or withdraw from the University without special consideration.

Warning, Probation, and Suspension Rules

1. If a student who has been in good standing has a total institution GPA less than 2.0 at the end of any long semester, the student will be placed on academic warning for the next long semester or summer session(s) attended.
2. A student who has been on academic warning during a long semester is subject to the following:
   a. At the end of the semester, if the total institution GPA is 2.00 or above, the student is returned to good standing.
   b. At the end of the semester, if the total institution GPA is less than 2.0, the GPA for the semester will be used to determine the student's status.
      i. If the GPA for the semester is less than 2.00, the student will be suspended.
      ii. If the GPA for the semester is 2.00 or higher, the student will be placed on probation.
3. A student on probation who has less than a 2.00 total institution GPA at the end of a semester will be suspended for the next long semester. A student on probation who has a 2.00 or better total institution GPA at the end of the next semester a student attends will be removed from probation and returned to good standing.
4. A student who transfers from Tarleton while on academic warning or probation and then returns (having met transfer requirements) has the same academic standing the first long semester back at Tarleton as though there had been no transfer.
5. A student who is suspended from Tarleton and does not attend another institution during the term of the suspension or thereafter may return to Tarleton after the term of the suspension and will be on academic warning the first long semester back at Tarleton. Any student who does not attend a fall or spring semester must reapply to the university.
6. A student who is suspended from Tarleton and attends another institution during the term of suspension or thereafter must meet Tarleton's transfer admission requirements in order to be readmitted. The student will be on academic warning the first long semester back at Tarleton. Any student who does not attend a fall or spring semester must reapply to the university.

****NOTE: If a student is suspended from Tarleton State University, sits out a long semester (spring/fall), the student must reapply at www.applytexas.org (https://www.applytexas.org/adappc/gen/c_start.WBX) to regain admission into the university.****

Length of Suspension

The first suspension is for one long semester. The second is for one calendar year, and the third is indefinite. Three calendar years after imposition of third suspension, the student may apply for readmission; this application will be evaluated by the appropriate dean, but readmission is not guaranteed. Students who have been absent for one or more long semesters must reapply to the university for admission.

Summer School

A student on academic warning or probation may attend summer school at Tarleton (transfer requirements having been met, if applicable).

Students placed on first suspension at the end of a spring semester may request their dean's approval to attend summer school. A student attending summer school while on their first suspension, who has an institution GPA of 2.00 at the end of the last summer session attended, will be returned to good standing.

Forgiveness Options

An undergraduate student enrolled at Tarleton may choose to exercise one, but not both, of the following forgiveness options:

OPTION I: Grades for any one semester of Tarleton work taken more than 5 years before a student's current enrollment at Tarleton may be deleted for computation of total institution GPA if the student files a request with the Provost and Vice President for Academic Affairs. This option may be exercised one time only.

OPTION II: After a student has attempted ninety or more hours at Tarleton, grades for one semester of Tarleton work may be deleted for computation of total institution GPA if the student files a request with the Provost and Vice President for Academic Affairs. This option may be exercised one time only.

When a student has exercised one of these forgiveness options, grades for the semester selected by the student will be excluded when computing the total institution grade point average. Under either option, **all courses and grades will continue to appear on the student's transcript and to be counted toward restrictions in total number of withdrawals, fees for repeated courses, fees resulting from excess hours beyond the degree, etc.** In applying the option, *all* grades from the chosen semester are deleted from the GPA, not just low or failing grades. Also, no classes taken in the semester being forgiven will be counted on the student's degree plan. A student seeking to exercise either option must be enrolled at Tarleton at the time he/she requests the forgiveness option.

Academic Credit

Tarleton has policies and procedures in place for determining the amount and level of credit awarded for courses and programs, regardless of format or mode of delivery, that conform to commonly accepted practices in higher education. Tarleton uses a course credit as a measure of academic accomplishment that a student receives for completion of a course, calculated in units of semester credit hours (SCH), which is defined in accordance with rules established by the U.S. Department of Education (34 CFR 668.8(k) and (l) (https://www.ecfr.gov/cgi-bin/text-idx/?SID=b6e0859696e9a6978867fabe93319a00&mc=true&node=pt34.3.668&rgn=div5#se34.3.668_18)). The semester credit hour value of a course is determined by the number of contact hours spent in course work per week. Typically, a three semester credit hour course meets for three contact hours (three 50-minute sessions or two 75-minute sessions) per week for a 15 week semester, plus a week for final examinations. In total, the three semester credit hour course meets for 45-48 contact hours, depending on whether a final exam is delivered. Tarleton further adheres to Texas state policy regarding the awarding of credit for coursework. The Texas Administrative Code (19 TAC §4.6 (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=6)) requires 45 contact hours in each 3 hour course delivered in 15 weeks of instruction, with a week for final examinations. The State of Texas certifies that the 45 hour/15 week standard conforms to commonly accepted practice in higher education. Practica, internships, labs, online/hybrid and other non-standard courses are assigned credit hours based on learning objectives rather than on the standard contact hour requirements. In such cases, courses are reviewed and approved through a formal institutional faculty review process (University Curriculum Committee and Academic Council for undergraduate credit; and Graduate Council and Academic Council for graduate credit) that evaluates the course and determines that the course has learning outcomes comparable to a traditional lecture-based course.

Program Requirements

An academic program is a structured set of academic requirements leading to the award of a recognized credential that is included on a student's academic transcript.

Requirements for an Associate Degree

General Requirements

1. **Overall GPA**: A GPA of 2.00 or better is required for all work counted toward a degree.
2. **Major GPA**: A GPA of 2.00 or better is required for all work in the major field of study and counted toward a degree.
3. **Institutional GPA**: All students, including transfer students and students native to Tarleton, must have an institutional GPA of 2.00 or better in all courses taken at Tarleton that are counted toward a degree. Additionally, students must maintain a GPA of 2.00 or higher in all major field of study courses completed at Tarleton.

Associate Program Requirements

A total of 60 credit hours consisting of 23 credit hours of prerequisites, and 37 credit hours of technical program courses. Prerequisite courses may be taken at the university or any one of the thirteen consortium community colleges. The sophomore courses comprising the technical program will be taken in Fort Worth at the Southwest Metroplex Center off-campus instructional site and affiliated clinical hospital sites.

Requirements for a Baccalaureate Degree

General Requirements

1. A GPA of 2.00 or better is required for all work counted toward a degree.
2. A GPA of 2.00 or better is required for all work in the major field of study and counted toward a degree.
3. All transfer students must have an overall GPA of 2.00 or better in all courses taken at Tarleton in their major field of study and counted toward a degree as well as an overall GPA of 2.00 or better in all courses taken at Tarleton and counted toward a degree.
4. Students must complete a minimum of 39 advanced hours (3xxxx or 4xxxx level courses) to obtain a baccalaureate degree.

Residence Requirements

Residence is satisfied only by official enrollment in and completion of course work applied toward the degree requirements.

1. A minimum of 30 semester hours, or 25%, of work counted toward the degree must be completed with Tarleton. The work completed at Tarleton and counted toward the degree must include at least 30 advanced hours (3000 or 4000 level) and 12 of these advanced hours must be in the major subject.
2. A maximum of 68 semester hours of academic credit will be accepted for degree credit from a two-year institution.

Writing Proficiency Requirement

All students are required to satisfy the Writing Proficiency Requirement as a condition for the baccalaureate degree. To satisfy this requirement, students must have credit for four writing intensive (WI) courses. Two of these four courses must be upper level WI courses within the major or designed for the degree plan. The remaining WI requirement should be met through successful completion of freshman composition courses within the general education curriculum. For additional information regarding the WI program, please refer to: https://www.tarleton.edu/wip/index.html (https://www.tarleton.edu/wip/).

General Education Requirements

All degree programs leading to the baccalaureate degree include the following University General Education Requirements [1, 2]:

American History		**6**
HIST 1301	United States History I	
HIST 1302	United States History II	
Component Area Option and Communications		**9**
ENGL 1301 [WI (p. 396)]	Composition I	
ENGL 1302 [WI (p. 396)]	Composition II [3]	
Select one of the following:		
COMM 1311	Introduction to Speech Communication	
COMM 1315	Public Speaking	
COMM 2302	Business and Professional Speaking	
Creative Arts		**3**
Select one of the following:		
ARTS 1301	Art Appreciation	
ARTS 1303	Art History I	
ARTS 1304	Art History II	
ARTS 3331	Art History of America	
DRAM 1310	Introduction to Theatre	
DRAM 2361	History of the Theatre I	
DRAM 4304 [WI (p. 396)]	Dramatic Theory & Criticism	
ENGL 2307	Introduction to Creative Writing	
FINA 1360	The Art of Film	
HUMA 1315	Fine Arts Appreciation	
MUSI 1306	Music Appreciation	
MUSI 1310	Popular Music in America	
MUSI 1311	Music Theory I	
MUSI 2350	Music Cultures of the World	
MUSI 3325	Jazz History	
Government and Political Science		**6**
GOVT 2305	Federal Government (Federal Constitution and Topics)	
GOVT 2306	Texas Government (Texas Constitution and Topics)	
Language, Philosophy and Culture		**3**
Select one of the following:		
ENGL 2320	Forms of Literature	
ENGL 2321	British Literature	
ENGL 2326	American Literature	
ENGL 2340	Literature and Film	
ENGL 2350	Backgrounds of Western Literature	
ENGL 2360	Monsters in Literature	
ENGL 2362	Crime Fiction	
ENGL 2364	Texas Literature	
ENGL 2366	Death and Dying in Literature	
ENGL 2368	Comics and Games as Literature	

HIST 2321	World Civilizations I	
HIST 2322	World Civilizations II	
KINE 2315	History and Philosophy of Sport, Recreation, and Exercise	
PHIL 1301	Introduction to Philosophy	
Life and Physical Sciences [4]		**6**
Select from the following:		
AGRI 1307	Agronomy	
ANSC 1319	General Animal Science	
ANSC 1119	General Animal Science Laboratory	
BIOL 1305	Biology for the Informed Citizen	
BIOL 1406	Biology for Science Majors	
BIOL 1407	Biology for Science Majors II	
BIOL 2401	Anatomy and Physiology I	
BIOL 2402	Anatomy & Physiology II	
CHEM 1302	Essential Elements of Chemistry	
CHEM 1311	College Chemistry I (Lecture)	
CHEM 1111	College Chemistry I (Laboratory)	
CHEM 1312	College Chemistry II (Lecture)	
CHEM 1112	College Chemistry II (Laboratory)	
CHEM 1407	Fundamentals of Chemistry	
EASC 2310	Earth Systems Science	
ENVS 1308	Environmental Science II	
GEOG 1301	Planet Earth	
GEOG 1451	Pre-GIS: GPS, VGI and Cartography	
GEOL 1302	Geology of National Parks	
GEOL 1307	Introduction to Environmental Science	
GEOL 1308	Natural Disasters	
GEOL 1403	Physical Geology	
GEOL 1404	Historical Geology	
GEOL 1408	Natural Disasters	
PHYS 1302	Essential Elements of Physics	
PHYS 1401	College Physics I	
PHYS 1402	College Physics II	
PHYS 1403	Stars and Galaxies	
PHYS 1410	Great Ideas of Physics	
PHYS 1411	Introductory Astronomy I	
PHYS 2425	University Physics I	
PHYS 2426	University Physics II	
WSES 2305	Wildlife and Natural Resource Ecology	
Mathematics [3]		**3**
Select one of the following:		
MATH 1314	College Algebra [3]	
MATH 1316	Plane Trigonometry	
MATH 1324	Math for Business & Social Sciences I (Finite Mathematics)	
MATH 1332	Contemporary Mathematics I	
MATH 1342	Elementary Statistical Methods	
MATH 2412	Precalculus Math	
MATH 2413	Calculus I	
Social & Behavioral Sciences		**3**
Select one of the following:		
AGEC 2317	Introductory Agricultural Economics	
ANTH 2302	Introduction to Archeology	
ANTH 2351	Cultural Anthropology	
BUSI 1307	Personal Finance	
CRIJ 1301	Introduction to Criminal Justice	
ECON 1301	Introduction To Economics	
ECON 2301	Principles of Macroeconomics	
ENGR 2303	Engineering Economy	
or ENGT 2303	Engineering Economy	
ENVS 1302	Science, Technology, and the Environment	
GEOG 1303	World Regional Geography	
GEOG 1320	Introduction to Human Geography	
GEOG 2301	The Geography of Texas	
PHIL 1304	Introduction to World Religions	
PHIL 2303	Introduction to Logic	
PHIL 3301	Ethics in the Professions	
PSYC 2301	General Psychology	
SOCI 1301	Introductory Sociology	

SOCI 1306	Social Problems	
SOCI 2301	Marriage & the Family	
SOCW 2362	Social Welfare Programs in America	
Component Area Option		**3**
Students will have up to three hours of general education electives to meet the Component Area Option requirements, depending on the requirements of their major program. To fulfill the general education elective hours, students can complete any general education course(s) from the list that they have not previously completed. [4]		
Total Hours		**42**

1 General Education Requirements are subject to review and change by the Texas Higher Education Coordinating Board.
2 Some degree programs specify the courses that satisfy these requirements. A student should consult with an academic advisor in selecting general education requirement courses.
3 Students must enroll in these courses as outlined in the PLACEMENT, CONTINUING ENROLLMENT, AND COMPLETION RULES for Freshman-Level Mathematics and English Courses.
4 For additional information contact your departmental advisor or the advising center.

Student Success-ADA

Tarleton State University is committed to complying with the Americans with Disabilities Act (https://www.ada.gov/) and other applicable laws. If you are a student seeking an accommodation, please contact the Office of Student Accessibility Services at 254.968.9650 or visit the Office's website. (https://www.tarleton.edu/sas/)

Registrar

The mission of the Office of the Registrar is to provide exceptional administrative support to students, faculty, staff, and the greater community. We maintain the integrity of academic policies and records by serving as a vital resource and partner in supporting the university's mission.

Privacy of Information/FERPA

Under the Family Educational Rights and Privacy Act of 1974, the following data are designated as directory information and may be made public unless the student desires to withhold it: student's name, student type, mailing address, official email address, major field of study, military service status, classification, participation in officially recognized activities and sports, dates of University attendance, degrees and academic honors received, and the most recent previous education agency or institution attended. Any undergraduate or graduate student wishing to withhold all of this information should, within 10 days after the first class day, complete the appropriate form, available at the Registrar's Office. For more information about FERPA, please visit www.tarleton.edu/registrar (http://www.tarleton.edu/registrar/).

Student Classifications

In progress courses do not count toward a student's classification. Student classifications are only updated once a semester during the end of term processing.

Type	Hours
Freshman	less than 30 semester hours
Sophomore	30-59 semester hours
Junior	60-89 semester hours
Senior	90 or more semester hours
Post-baccalaureate	Holds baccalaureate degree but is not admitted for graduate study

Student Course Load

Undergraduate**

Semester Credit Hours	Fall/Spring	Summer
Maximum Load	19	15
Full-time	12	7*

* Students receiving financial aid/scholarship(s) should refer to the Financial Aid (https://www.tarleton.edu/finaid/) website for additional information regarding aid during the full-time summer term.

** Enrollment status for the summer semester is determined by the total number of credit hours the student is registered for the entire summer term.

Special requests to take loads exceeding the stated maximums require approval of the appropriate academic dean by completing an Overload Request and Registration Form

Grading System

At mid-semester, we will assign preliminary grades to freshmen and sophomore students enrolled in 1000- and 2000-level courses. These grades will be made available to the students through Ducktrax. Final grades for all courses will be accessible on myGateway at the end of each semester.

Student grades will be assigned one of the following letters:

Grade	Description
A	Excellent, 4 grade points per semester hour
B	Good, 3 grade points per semester hour
C	Fair, 2 grade points per semester hour
D	Passing; 1 grade point per semester hour
F	Failing
F0	Failing, Non Attendance
FX	Failing, Stopped Attending
I	In-progress (used for non-completed thesis course work)
K	Incomplete (under exceptional circumstances, see below)
Q	Withdrawal from course, no grade designated
W	Withdrawal from university, no grade designated
WF	Withdrawal failing from university (included in GPA)
P(1)	Pass
S(1)	Satisfactory
U	Unsatisfactory
MI	Military Incomplete

[1] Signifies credit with neutral grade point value.

The minimum passing grade is D. Note that some universities may not accept a D for transfer credit, and it is not considered passing for developmental courses.

If a course is repeated, only the best grade is considered for calculating the GPA.

The grade K shall be recorded for a student only in extraordinary circumstances. This entry is used only in such cases after the instructor and his/her department head have concurred that the incomplete entry is justified. A grade of K must be made up by the last day course grades are due to the Registrar's Office during the next long semester and in all cases before registering for the next sequential course. Should this grade not be reported to the Registrar's Office within the prescribed time limit, it automatically becomes and F.

A student who drops a course on or before the census date receives no grade, and the course will not be listed on that student's permanent record.

Audit Policy

Audit Policy for Enrolling in Courses

Students wishing to audit a course must adhere to the following procedures and regulations:

Application Process
Students must complete an Audit Course Form (https://www.tarleton.edu/registrar/wp-content/uploads/sites/335/2022/07/audit-course1.pdf) through the Office of the Registrar. Approval from both the course instructor and the department head is required.

Enrollment Guidelines
Audit enrollment is subject to the following conditions:

- Students may not attend more than one class meeting prior to receiving approval.
- Enrollment is contingent upon the availability of space and instructional resources. If availability is uncertain, approval may be deferred until the conclusion of the registration period.

Restrictions
Courses offered as individual instruction are not available for audit.

Academic Credit
Audited courses do not confer university credit. To earn credit, a student must enroll in the course for credit at a later term and pay all applicable tuition and fees.

Fees

- A non-refundable audit fee of $25 per course is required at the time of submission and must be paid through Business Services. This fee is subject to change.
- Audit students are responsible for any additional course-specific fees.
- Fees will be refunded only if the audit request is denied by Tarleton State University.

Concurrent Enrollment at Other Institutions

Students considering enrolling at another institution are strongly advised to schedule meetings with both their academic advisor and financial advisor. The academic advisor can provide guidance on the transfer process, ensuring that the student understands how their credits will transfer into their respective degree program. Additionally, meeting with the financial advisor is crucial to discuss the financial implications of tuition, financial aid, and scholarships.

Drop and Withdrawal Policies

Dropping Courses:

If a student wishes to drop one or more course, please read the following:

1. After the late add/drop period ends (please see chart below), students will complete the **Course Drop Form** in Ducktrax. After submission, a confirmation email will be sent to the student and again once the drop has been processed by the Registrar's Office.

Note: Attend classes until the drop procedure is completed to avoid attendance penalties.

Length of Class in Weeks and Late Add/Drop Period

- 3 weeks: First Class Day
- 5 weeks: First Class Day
- 8 weeks: First and Second Class Day
- 10 weeks: First and Second Class Day
- 15 weeks or more: First Five Class Days

University Withdrawal:

If a student wishes to drop all courses in their current term of enrollment, please read the following:

1. Students will complete the University Withdrawal form through Ducktrax (https://www.tarleton.edu/mygateway/) by logging into myGateway.
2. Refer to the census chart to determine deadlines for dropping courses or withdrawing based on the length of the class.

Census Chart

Length of Class in Weeks	Official Census Date	Last Date to Drop with a "Q" or Withdraw with a "W"
3 weeks	Second class day	Friday of second week
5 weeks	Fourth class day	Friday of third week
8 weeks	Sixth class day	Q drop - Friday of fifth week, Withdraw - Friday of sixth week
10 weeks	Seventh class day	Q drop - Friday of sixth week; Withdraw - Friday of eighth week
15 weeks or more	Twelfth class day	Q drop - Friday of tenth week; Withdraw - Friday of twelfth week

1. Withdraw on or before the last day to withdraw to receive a 'W' grade; after this, a 'WF' grade is assigned.
2. Students may appeal for a change from 'WF' to 'W' if passing at the time of withdrawal.
3. Failure to officially withdraw results in 'F' grades for all courses in progress.
4. In special cases, contact the Registrar's office for an "Official Withdrawal Request Form."

***Exception Withdrawal**:* Possible under specific circumstances, with eligibility criteria including death, serious illness, critical situations, military service, or approval by an Academic Affairs Vice President or above. Must be pursued **before** the last official class day.

Limits on Dropped Courses: Senate Bill 1231 limits undergraduates to 6 dropped courses. For appeals beyond this limit, visit Drop Information. Requests are reviewed under Texas Higher Education Coordinating Board Regulations by the Academic Affairs designee.

Prior to Fall 2007 Enrollment: Students enrolled before Fall 2007 may refer to the catalog at their initial enrollment for specific rules regarding dropped courses and withdrawals.

For detailed information, consult the official Tarleton University Catalog Archive.

Military Leave and Service for Students

In accordance with state and federal law and requirements outlined in The Texas A&M University System Regulation 13.99.99, Military Leave and Service for Students, Tarleton grants readmission to eligible students who withdraw due to service in the uniformed services or active military service and allows excused absences for students who are absent solely because of required military service for a reasonably brief duration.

See the Tarleton State Policy site (https://www.tarleton.edu/policy/) or the Registrar's Office Withdraw Information (https://www.tarleton.edu/registrar/registration/withdraw-information/).

Fee Increases from Legislative Mandates

Texas legislative mandates govern increased fees for repeating courses and excessive hours for in-state tuition-paying undergraduate students. The in-state tuition rates for each category incur a $100 per credit hour increase. For more information, including exemptions, please go to the Registrar home page and select from the Policies menu.

Undergraduate Funding Limit – Rule of 45 Hours

Undergraduate students enrolling in an institution of higher education in Texas from Fall 1999 to Summer 2006 are subject to Texas Education Code § 54.014. The law stipulates an undergraduate student surpassing the remaining required hours for baccalaureate degree completion by a minimum of 45 semester credit hours will be subject to an increase of $100 per credit hour.

Undergraduate Funding Limit – Rule of 30 Hours

Undergraduate students enrolling in an institution of higher education from Fall 2006 onward are subject to Texas Education Code § 54.014. The law stipulates an undergraduate student surpassing the remaining required hours for a baccalaureate degree completion by a minimum of 30 semester credit hours will be subject to an increase of $100 per credit hour.

Students without a declared major are, by state law, considered to have a degree requirement of 120 hours.

Undergraduate Funding Limit – Rule of 15 Hours

Undergraduate students enrolling in an institution of higher education from Fall 2024 onward are subject to Texas Education Code § 54.014. The law stipulates an undergraduate student surpassing the remaining required hours for an associate degree completion by a minimum of 15 semester credit hours will be subject to an increase of $100 per credit hour.

Students without a declared major are, by state law, considered to have an associate degree requirement of 60 hours.

Repeat Course Rule (3-Peat Rule)

Undergraduate students attempting a particular course for the third time since Fall 2002 will incur an additional charge of $100 per credit hour for that specific course, as outlined in the Texas Higher Education Coordinating Board Rules (Chapter 13, Subchapter F, §13.108).

It is important to note that if a student enrolls in a course and subsequently decides to drop it, any hours attempted will contribute to the limit set by the 3-Peat Rule. However, if the course is dropped before the official census date, those hours will not be considered against the 3-Peat Rule limit.

Appeal Process

Students charged additional tuition rates under the Excess House Funding Limit Rule and/or the Repeat Course (3-Peat) Rule have the option to file an appeal. The appeal process is per semester, requiring students to submit an appeal for every semester affected by the repeated course rule and/or the excess hours beyond a degree rule. The appeal form and procedures can be obtained from the Registrar's Office or online under the respective policy.

Undergraduate Funding Limit

3-Peat

Warning, Probation and Suspension

Please be advised that the following regulations are applicable to all students, unless special admission conditions impose more restrictive rules or unless a program, department, or college has approved more stringent rules.

The purpose behind academic warning, probation, and suspension is to bring to the student's attention the University's concern regarding unsatisfactory progress in their course of study. Early notification of this concern provides students with the opportunity to make necessary adjustments to maintain good standing. The minimum acceptable academic standard is a 2.0 total institution GPA, reflecting the minimum GPA requirement for graduation. The total institution GPA considers the best attempt on all courses taken at Tarleton State University, excluding grades on transfer work. A student with a 2.0 or better total institution GPA is considered in good academic standing.

Here are the key guidelines for Warning, Probation, and Suspension:

1. **Warning**
    a. Students must be aware of their academic status and the relevant regulations. Failure to comply with these regulations may lead to the requirement to reduce academic loads or withdraw from the University without special consideration.
2. **Suspension Rules**
    a. If a student's total institution GPA drops below 1.00 at the end of any long semester, they will be suspended for the following long semester.
    b. A student in good standing with a total institution GPA between 1.00 and 1.99 will be placed on academic warning for the next long semester.
3. **Academic Standing After Warning or Probation**
    a. If the total institution GPA is 2.00 or above at the end of the semester, the student returns to good standing.
    b. If the total institution GPA is between 1.00 and 1.99, the semester GPA determines the student's status.
        i. If the semester GPA is less than 2.00, the student will be placed on suspension.
        ii. If the semester GPA is 2.00 or higher, the student will be placed on probation.
4. **Transfer Students:**
    a. Students transferring from Tarleton while on academic warning or probation maintain the same academic standing upon return.
    b. Suspended students who do not attend another institution during the suspension may return on academic warning.

5. **Length of Suspension:**
    a. First suspension is for one long semester.
    b. Second suspension is for one calendar year.
    c. Third suspension is indefinite. After three calendar years, readmission may be applied for, but it is not guaranteed.
6. **Summer School**
    a. Students under academic warning or probation are eligible to attend summer school at Tarleton, provided they meet transfer requirements if applicable.
    b. For students facing their first suspension at the conclusion of a spring semester, there is an option to seek approval from their dean to attend summer school. If a student on their first suspension attends summer school and achieves an institution GPA of 2.00 at the conclusion of the summer session, they will be reinstated to good standing.
7. **Forgiveness Options:**
    a. Students may exercise one of the forgiveness options:
        i. Option I: Delete grades for one semester taken more than 5 years before current enrollment (one-time only).
        ii. Option II: Delete grades for one semester after attempting ninety or more hours at Tarleton (one-time only).

When a student opts for one of the forgiveness alternatives, the grades from the selected semester will be excluded from the calculation of the total institution grade point average. Despite this exclusion, all courses and grades associated with the forgiven semester will remain visible on the student's transcript, impacting considerations such as total withdrawals, fees for repeated courses, and fees related to exceeding the maximum hours for the degree.

It's important to emphasize that this exclusion encompasses all grades from the chosen semester, not just those categorized as low or failing. Additionally, courses taken during the forgiven semester will not be factored into the student's degree plan.

To exercise either forgiveness option, the student must be enrolled at Tarleton at the time of the forgiveness request. It's crucial to note that the forgiveness option is a one-time opportunity and can only be utilized once. Exceptions to this policy may be considered in instances of extenuating circumstances, at the discretion of the Registrar.

****NOTE: If a student is suspended from Tarleton State University, sits out a long semester (spring/fall), the student must reapply at** www.applytexas.org (https://www.applytexas.org/adappc/gen/c_start.WBX) **to regain admission into the university. ****

Enrollment Verification

Enrollment Verification and Status Definitions

Required Credit Hours for Full-Time Status:

Undergraduate:

Semester Credit Hours	Fall/Spring	Summer
Full-time	12 hours	7 hours

Graduate:

Semester Credit Hours	Fall/Spring	Summer
Full-time	9 hours	6 hours

Doctoral:

Semester Credit Hours	Fall/Spring	Summer
Full-time	6 hours	6 hours

Enrollment status for financial aid purposes may differ from that defined by the Office of the Registrar. Visit Financial Aid for more details.

Important Notes:

- Dropped courses cannot be used for enrollment verification.
- Updates to the National Student Clearinghouse occur periodically, reflecting changes in enrollment status due to dropped courses or university withdrawal.

Proof of Enrollment:

- Obtain proof of enrollment at Enrollment Verifications.

Consequences of Less Than Full-Time Enrollment: A student enrolled less than full-time at Tarleton State University may risk:

- Losing insurance coverage under a parent/guardian's policy.
- Facing loan repayment schedules for Federal financial aid recipients.
- Losing scholarships requiring full-time enrollment.

Co-Enrollment Considerations:

- If co-enrolled at another institution during the same semester as Tarleton State University, only Tarleton State University hours are eligible for enrollment verification, unless part of a financial aid consortium.

Requirements of an Associate Degree

Degree Requirements

Requirements include maintaining a GPA of 2.00 or better for all degree-related work and within the major. Transfer students must also meet these GPA criteria for courses taken at Tarleton.

Program Requirements

Program requirements include 60 semester credit hours, with 23 credit hours in prerequisites and 37 credit hours in technical program courses. Prerequisites may be completed at Tarleton State University or one of thirteen consortium community colleges. Sophomore courses in the technical program are conducted at the Tarleton State University Fort Worth Off Campus Instructional Site and affiliated clinical hospital sites.

Requirements for a Baccalaureate Degree

Degree Requirements

Students must maintain a GPA of 2.00 or higher for all degree-related work and within the major. Transfer students must achieve a 2.00 GPA overall for courses in their major and for all courses taken at Tarleton. At least 39 advanced credit hours must be completed to obtain a baccalaureate degree.

Residence Requirements

To meet residency requirements, students must be officially enrolled and have at least 25% of their degree from Tarleton State University, including a minimum of 12 credit hours in their major.

Writing Proficiency Requirement

To earn a baccalaureate degree, students must meet the Writing Proficiency Requirement by completing four writing intensive (WI) courses. Two of these must be upper-level WI courses within the major or designed for the degree plan. The remaining WI requirement can be fulfilled through successful completion of freshman composition courses in the general education curriculum. For more information on the WI program, visit: http://www.tarleton.edu/PROGRAMS/wip/index.html (http://www.tarleton.edu/PROGRAMS/wip/).

General Education Requirements

All bachelor's degree programs have the following University General Education Requirements. [1, 2]:

American History		**6**
HIST 1301	United States History I	
HIST 1302	United States History II	
Component Area Option and Communications		**9**
ENGL 1301 [WI (p. 396)]	Composition I	
ENGL 1302 [WI (p. 396)]	Composition II [3]	
Select one of the following:		
COMM 1311	Introduction to Speech Communication	
COMM 1315	Public Speaking	
COMM 2302	Business and Professional Speaking	
Creative Arts		**3**
Select one of the following:		
ARTS 1301	Art Appreciation	
ARTS 1303	Art History I	
ARTS 1304	Art History II	
ARTS 3331	Art History of America	
DRAM 1310	Introduction to Theatre	
DRAM 2361	History of the Theatre I	
DRAM 4304 [WI (p. 396)]	Dramatic Theory & Criticism	
ENGL 2307	Introduction to Creative Writing	
FINA 1360	The Art of Film	
HUMA 1315	Fine Arts Appreciation	
MUSI 1306	Music Appreciation	
MUSI 1310	Popular Music in America	
MUSI 1311	Music Theory I	
MUSI 2350	Music Cultures of the World	
MUSI 3325	Jazz History	
Government and Political Science		**6**
GOVT 2305	Federal Government (Federal Constitution and Topics)	
GOVT 2306	Texas Government (Texas Constitution and Topics)	
Language, Philosophy and Culture		**3**
Select one of the following:		
ENGL 2320	Forms of Literature	
ENGL 2321	British Literature	
ENGL 2326	American Literature	
ENGL 2340	Literature and Film	
ENGL 2350	Backgrounds of Western Literature	
ENGL 2360	Monsters in Literature	
ENGL 2362	Crime Fiction	
ENGL 2364	Texas Literature	
ENGL 2366	Death and Dying in Literature	
ENGL 2368	Comics and Games as Literature	
HIST 2321	World Civilizations I	
HIST 2322	World Civilizations II	
KINE 2315	History and Philosophy of Sport, Recreation, and Exercise	
PHIL 1301	Introduction to Philosophy	
Life and Physical Sciences [4]		**6**
Select from the following:		
AGRI 1307	Agronomy	
ANSC 1319	General Animal Science	
ANSC 1119	General Animal Science Laboratory	
BIOL 1305	Biology for the Informed Citizen	

BIOL 1406	Biology for Science Majors	
BIOL 1407	Biology for Science Majors II	
BIOL 2401	Anatomy and Physiology I	
BIOL 2402	Anatomy & Physiology II	
CHEM 1302	Essential Elements of Chemistry	
CHEM 1407	Fundamentals of Chemistry	
CHEM 1311	College Chemistry I (Lecture)	
CHEM 1111	College Chemistry I (Laboratory)	
CHEM 1312	College Chemistry II (Lecture)	
CHEM 1112	College Chemistry II (Laboratory)	
EASC 2310	Earth Systems Science	
ENVS 1308	Environmental Science II	
GEOG 1301	Planet Earth	
GEOG 1451	Pre-GIS: GPS, VGI and Cartography	
GEOL 1302	Geology of National Parks	
GEOL 1307	Introduction to Environmental Science	
GEOL 1308	Natural Disasters	
GEOL 1403	Physical Geology	
GEOL 1404	Historical Geology	
GEOL 1408	Natural Disasters	
PHYS 1302	Essential Elements of Physics	
PHYS 1401	College Physics I	
PHYS 1402	College Physics II	
PHYS 1403	Stars and Galaxies	
PHYS 1410	Great Ideas of Physics	
PHYS 1411	Introductory Astronomy I	
PHYS 2425	University Physics I	
PHYS 2426	University Physics II	
WSES 2305	Wildlife and Natural Resource Ecology	
Mathematics [3]		**3**
Select one of the following:		
MATH 1314	College Algebra [3]	
MATH 1316	Plane Trigonometry	
MATH 1324	Math for Business & Social Sciences I (Finite Mathematics)	
MATH 1332	Contemporary Mathematics I	
MATH 1342	Elementary Statistical Methods	
MATH 2412	Precalculus Math	
MATH 2413	Calculus I	
Social & Behavioral Sciences		**3**
Select one of the following:		
AGEC 2317	Introductory Agricultural Economics	
ANTH 2302	Introduction to Archeology	
ANTH 2351	Cultural Anthropology	
BUSI 1307	Personal Finance	
CRIJ 1301	Introduction to Criminal Justice	
ECON 1301	Introduction To Economics	
ECON 2301	Principles of Macroeconomics	
ENGR 2303	Engineering Economy	
or ENGT 2303	Engineering Economy	
ENVS 1302	Science, Technology, and the Environment	
GEOG 1303	World Regional Geography	
GEOG 1320	Introduction to Human Geography	
GEOG 2301	The Geography of Texas	
PHIL 1304	Introduction to World Religions	
PHIL 2303	Introduction to Logic	
PHIL 3301	Ethics in the Professions	
PSYC 2301	General Psychology	
SOCI 1301	Introductory Sociology	
SOCI 1306	Social Problems	
SOCI 2301	Marriage & the Family	
SOCW 2362	Social Welfare Programs in America	
Component Area Option		**3**
Students will have up to three hours of general education electives to meet the Component Area Option requirements, depending on the requirements of their major program. To fulfill the general education elective hourse, students can complete any general education course(s) from the list that they have not previously completed. [4]		
Total Hours		**42**

[1] General Education Requirements are subject to review and change by the Texas Higher Education Coordinating Board.

[2] Some degree programs specify the courses that satisfy these requirements. A student should consult with an academic advisor in selecting general education requirement courses.
[3] Students must enroll in these courses as outlined in the PLACEMENT, CONTINUING ENROLLMENT, AND COMPLETION RULES for Freshman-Level Mathematics and English Courses.
[4] For additional information contact your departmental advisor or the advising center.

Graduation Under a Particular Catalog

To earn a degree from Tarleton State University, students must fulfill all requirements outlined in a specific University catalog within six years. For instance, if a student graduates under the 2024-2025 catalog, all degree requirements must be completed by August 2030. Active-duty military students may extend the six-year limit by one year for each year of service, up to four years. Students can choose the catalog:

- 1. When they first enroll at Tarleton State University.
- 2. For any subsequent year they are registered at Tarleton.
- 3. At the time of their first enrollment in higher education.

Students enrolling for the first time in a summer session may choose either the preceding spring or the subsequent fall catalog.

Degree Plan Information

Students must declare their major by the beginning of their junior year with a minimum of 24 semester hours, including 12 advanced credit hours. A double major needs a separate degree plan for each. Optional minors (up to two) require a declaration on the degree plan. Developmental courses can't count in the degree plan.

1. MAJOR
   a. Declare the major by the start of the junior year. A major requires a minimum of 24 semester hours, with at least 12 in advanced courses. For a double major, file a degree plan for each major.
2. MINOR
   a. A minor comprises at least 18 hours in a field other than the major, including 6 advanced hours at Tarleton. While optional in most programs, declaring a minor is recommended. Interdisciplinary programs have minor restrictions, and if desired, declare it on the degree plan. Students can have up to two minors.

      Refer to the catalog's UNDERGRADUATE ACADEMIC PROGRAMS section for a list of possible minors.

3. DEVELOPMENTAL COURSES
   a. (UNIV 0301, 0314, 0324, 0332 or 0342) for University requirements cannot be part of the degree plan.

4. CREDIT HOUR REQUIREMENTS
   a. A baccalaureate degree requires a minimum of 120 semester credit hours, including at least 39 advanced credit hours.
5. SPECIAL CONSIDERATIONS
   a. Seniors cannot take a freshman course with the same academic prefix as their first or second declared major field.
   b. A student can apply a maximum of 6 hours of activity KINE credits toward the degree.

Double Major

A double major is defined as a major of the same degree type, e.g. Bachelor of Science. A student pursuing a second baccalaureate degree of the same type must complete all the requirements of both majors. A separate degree plan must be filed for each major, and students must meet Tarleton's residency requirements for each major. Note that discipline-specific nomenclature falls under the "parent" degree type, for example, the BSN and BSW are both under "Bachelor of Science."

Dual Degrees

Earning dual degrees involves fulfilling requirements for two different majors from different degrees or two degrees in different colleges simultaneously. An additional minimum of 24 credit hours beyond the degree with greater credit requirements is needed. All requirements for both degrees must be completed. No course in the extra 24 hours can count in more than one major. If a course is listed in both majors, approval from the advisor is needed to replace it. A minimum of 144 total semester credit hours is required for dual degrees.

Class Rings

Students become eligible to order class rings after completing 60 semester hours of degree credit. Jostens Ring Company will notify eligible students by mail. Rings can be ordered during Ring Days at the Tarleton Alumni Center or Thompson Student Center, or online at www.jostens.com (http://www.jostens.com/). Rings are presented to students at the Tarleton Alumni Association Official Ring Presentation Ceremony in both Spring and Fall semesters.

Graduation Application

To graduate, candidates must submit an "Application for Graduation" to the Registrar (for undergraduates) or the Graduate Office (for graduates) by the deadline in the University Calendar. They must also be in good standing with the University and fulfill all contractual and financial obligations.

Eligibility for Honors Graduation

To graduate with honors, a student needs at least 30 hours at Tarleton. Honors are based on two GPAs: Overall GPA (calculated on all transcript hours) and Institutional GPA (calculated on hours taken at Tarleton). Honors require a 3.50 or higher in both GPAs. Recognition is as follows based on the smaller of the two GPAs:

- 3.90-4.00 GPA: Summa Cum Laude
- 3.75-3.89 GPA: Magna Cum Laude
- 3.50-3.74 GPA: Cum Laude

Tuition Rebate

Texas offers a $1,000 tuition rebate to eligible students graduating from Tarleton State University with a bachelor's degree and no more than 3 hours over the required minimum. Starting from Fall 2005, timely graduation is also required. Details on timely graduation and other rebate qualifications are at www.collegeforalltexans.com (http://www.collegeforalltexans.com/). Students need to apply for the rebate before receiving their degree. The rebate is applicable for students entering a bachelor's degree program as freshmen during or after Fall 1997. More information is available from the Registrar's Office.

Special Degree Programs

Interdisciplinary Degree Programs

Tarleton State University offers the following degree programs that are interdisciplinary in nature: the Bachelor of Applied Arts and Sciences (BAAS), Bachelor of Applied Technology (BAT), Bachelor of Applied Science (BAS), and the Bachelor of Science in Applied Science (BSAS). The BAAS, BSAS and the BAS allow the student to apply Prior Learning Credit coming from vocational or technical training to his/her degree program while the BAT requires the student to have completed an associate degree in an appropriate technical field. In all cases the student is encouraged to make contact with an academic advisor who is familiar with the specific program requirements. Students in these degree programs must meet all Tarleton requirements that are established as conditions for baccalaureate degrees unless specific waivers have been approved. This includes but is not limited to the general education and residency requirements. Students in these programs must complete a minimum of 30 advanced hours (3xxxx or 4xxxx level courses). Students in these degree programs may not get a minor in any support area required for the degree.

The Bachelor of Applied Arts and Sciences Degree (BAAS)

The Bachelor of Applied Arts and Sciences (BAAS) is designed for the students with training in a technical area. This degree utilizes Prior Learning Credit CPL from workforce education earned at technical schools, community colleges, military technical schools, etc. A student must have completed at least 12 semester credits of related hours (or equivalent) in technical training to be eligible for consideration for this degree. A limited number of experiential credits may be earned through a Prior Learning Portfolio, depending on the program. A student must have at least 12 semester credit hours (or equivalent) in the combination of workforce education and technical training and to be eligible for consideration. In all cases, the workforce education and technical training in the proposed degree area must be directly related to each other.

The approved occupational areas for the BAAS degree are Business, Criminal Justice Administration, Information Technology, Manufacturing and Industrial Management, GIS , Public Administration, Kinesiology, and Child Development Family Studies.

A student interested in the Bachelor of Applied Arts and Sciences should:

1. Review the admission requirements;
2. Contact the Office of the Registrar for a list of sponsoring departments and
3. Meet with an academic advisor identified to advise degree completion program. The student will need to submit written records related to educational training and work experience, create a portfolio to document work experience, and (if any). The student is responsible for securing all related documentation.

The department will review the written records and decide whether to sponsor a degree plan application. Sponsored degree plan applications will be considered by the Interdisciplinary Degree Programs (IDP) Committee. Degree plans approved by the Committee will be processed through regular University channels. Final approval will depend on completion of the University review process.

Occupational Requirements for BAAS Degree Programs

Occupational Specialization

The occupational specialization is a maximum of 33-36 semester credit hours (or equivalent) directly related to the degree area. These credit hours may consist of technical training and credit for work experience. Each of these has restrictions;

1. The technical training must be documented and approved by the IDP committee, appropriate documentation include: Certificates, Training transcripts, Military transcripts, State and National Licenses.
2. Students who have documented training from the employer that is relevant to the degree hours can receive credit based on the standard formulas below. Course work that comes from non-regionally accredited institutions will be treated as training hours, not semester credit hours.
   - 15 Clock Hours = 1 semester hour credit
   - 1 CEU = 10 clock hours
3. Course based credit in terms of workforce education will be primarily, credit based hours are courses that are included in the Texas Workforce Education Course Manual (WECM) or related are in the field of study. Out of state workforce credit will can be used but will be evaluated by the committee to ensure that the providers were accredited and recognized at the time credit was awarded. Credit will be grated based on the following formulas
   - Semester Credit hours= Full Credit
   - Quarter hours x 2/3 = semester hours (or .66 of each quarter hour)
4. Students who has less than 12 semester credit hours of technical training or course work will not be considered for the program. The possible credit for technical training ranges from 12 semester credit hours up to and including all 36 hours of occupational specialization in the degree.
5. Credit for work experience is awarded based on a PLA portfolios providing the program has chosen to provide an opportunity for it. Successful portfolios will be recommended by the department to the IDP committee for review and final approval. A total of 21 semester credit hours from multiple portfolios is the greatest possible amount awarded for work experience.
6. No student will be considered for the Bachelor of Applied Arts and Sciences degree that has less than 12 semester credit hours in technical training or the combination of technical training and work experience.

The Bachelor of Science in Applied Science

The BSAS degree program differs from the BAAS in two important ways. First, the degree accepts WECM classes and training hours that are not directly related to the major. Second, the degree is not able to accept Prior learning Experience. To be accepted into the BSAS, the student must have the equivalent of 12 Semester credit hours of either training or workforce education. The student pursuing the BSAS must complete the following, in addition to the University general education requirements:

Occupational Requirements for BS AS Degree Programs

Occupational Specialization

1. The occupational specialization is a maximum of 36 semester credit hours (or equivalent) that dose not need to be related to the degree area . These credit hours may consist of technical training and credit for workforce classes . Each of these has restrictions;
2. The technical training must be documented and approved by the IDP committee, appropriate documentation include: Certificates, Training transcripts, Military transcripts, State and National Licenses.
3. Course Based credit in terms of workforce education will be primarily, credit based hours are courses that are included in the Texas Workforce Education Course Manual (WECM) or related are in the field of study. Out of state workforce credit will can be used but will be evaluated by the committee to ensure that the providers were accredited and recognized at the time credit was awarded. Credit will be grated based on the following formulas
   - Quarter hours x 2/3 = semester hours (or .66 of each quarter hour)
   - Semester Credit hours= Full Credit
4. Students who has less than 12 semester credit hours of technical training or course work will not be considered for the program. The possible credit for technical training ranges from 12 semester credit hours up to and including all 36 hours of occupational specialization in the degree.

5. No student will be considered for the Bachelor of Science Applied Sciences degree that has less than 12 semester credit hours in technical training or the combination of technical training and work experience.
6. Students who have documented training from the employer that is relevant to the degree hours can receive credit based on the standard formulas below. Course work that comes from non-regionally accredited institutions will be treated as training hours, not semester credit hours.
    - 15 Clock Hours = 1 semester hour credit
    - 1 CEU = 10 clock hours

The Bachelor of Science in Applied Science is available with concentration in Business and Psychology. Note that work experience is not a part of this degree program. Students must work closely with the departmental advisor(s) responsible for this program.

The Bachelor of Applied Science (BAS)

The Bachelor of Applied Science degree accepts WECM classes and training hours that are closely related to the program. the degree is not able to accept work experience, To be accepted into the BSAS, the student must have the equivalent of 12 Semester credit hours of either training or course work.

Occupational Requirements for BAS Degree Programs

Occupational Specialization

1. The occupational specialization is a maximum of 36 semester credit hours (or equivalent) that dose not need to be related to the degree area . These credit hours may consist of technical training and credit for workforce classes . Each of these has restrictions;
2. The technical training must be documented and approved by the IDP committee, appropriate documentation include: Certificates, Training transcripts, Military transcripts, State and National Licenses.
3. Course Based credit in terms of workforce education will be primarily, credit based hours are courses that are included in the Texas Workforce Education Course Manual (WECM) or related are in the field of study. Out of state workforce credit will can be used but will be evaluated by the committee to ensure that the providers were accredited and recognized at the time credit was awarded. Credit will be grated based on the following formulas
    - Quarter hours x 2/3 = semester hours (or .66 of each quarter hour)
    - Semester Credit hours= Full Credit
4. Students who has less than 12 semester credit hours of technical training will not be considered for the program. The possible credit for technical training ranges from 12 semester credit hours up to and including all 36 hours of occupational specialization in the degree.
5. No student will be considered for the Bachelor of Applied Sciences degree that has less than 12 semester credit hours in technical training or the combination of technical training and work experience.
6. Students who have documented training from the employer that is relevant to the degree hours can receive credit based on the standard formulas below. Course work that comes from non-institutionally accredited institutions will be treated as training hours, not semester credit hours.
    - 15 Clock Hours = 1 semester hour credit
    - 1 CEU = 10 clock hours

The Bachelor of Applied Technology (BAT)

Students pursuing the Bachelor of Applied Technology or the Bachelor of Applied Science will have completed an appropriate associate degree at a community college before beginning one of these programs. There must be a close fit between the technical associate degree and the degree area, and students are encouraged to seek clarification before beginning the associate degree program to guarantee compatibility with approval criteria. For the Bachelor of Applied Technology the available emphasis area is Health Professions Technology.

Expenses

NOTE: The fees provided below are for the 2026-2027 academic year. The tuition/fee information below is an estimate and is subject to change based on Board action and Legislative requirements.

2026-2027 Regular Session Fees

Fall and Spring Semesters

Tuition Fee (see Note) (required)

Fee Type	Amount
UNDERGRADUATE GUARANTEED RATE	
Texas Resident – Undergraduate (1)	$199.92 per hour
Differential Tuition - College of Business	$30.60 per hour
Differential Tuition - College of Liberal and Fine Arts	$5.44 per hour
Differential Tuition - College of Agriculture and Natural Resources	$14.74 per hour
Differential Tuition - College of Education	$5.42 per hour
Differential Tuition - College of Science and Mathematics	$14.74 per hour
Differential Tuition - Criminal Justice	$32.18 per hour
Differential Tuition - Division of Health Sciences	$53.90 per hour
Differential Tuition - College of Engineering	$67.22 per hour
UNDERGRADUATE VARIABLE RATE	
Texas Resident - Undergraduate (1)	$183.71 per hour
Nonresident Undergraduate (1)	$611.71 per hour
Differential Tuition - College of Business	$29.14 per hour
Differential Tuition – College of Liberal and Fine Arts	$5.18 per hour
Differential Tuition – College of Agriculture and Natural Resources	$14.04 per hour
Differential Tuition – College of Education	$5.16 per hour
Differential Tuition – College of Science and Mathematics	$14.04 per hour
Differential Tuition - Criminal Justice	$30.65 per hour
Differential Tuition – Division of Health Sciences	$51.34 per hour
Differential Tuition – College of Engineering	$64.02 per hour
GRADUATE RATE	
Texas Resident – Graduate (1)	$241.90 per hour
Nonresident Graduate (1)	$669.90 per hour
Differential Tuition - College of Business	$26.22 per hour
Differential Tuition - College of Liberal and Fine Arts	$5.11 per hour
Differential Tuition - College of Agriculture and Natural Resources	$14.04 per hour
Differential Tuition - College of Education	$5.11 per hour
Differential Tuition - College of Science and Mathematics	$14.04 per hour
Differential Tuition -Criminal Justice	$2.72 per hour
Differential Tuition - Division of Health Sciences	$51.34 per hour
Differential Tuition - College of Engineering	$51.34 per hour

Fee Type	Amount
University Services Fee - Undergraduate	$96.01 per hour
University Services Fee - Graduate	$123.50 per hour
Health Service Fee	$4.91 per hour with $75 maximum
Excessive Hours Fee	$100.00 per hour
Intercollegiate Athletics Fee	$36.75 per hour with $477.75 max.
Parking Permit (Stephenville & Ft. Worth)	$200.00 per long semester
Recreational Sports Fee (Stephenville)	$100 per semester
Recreational Sports Fee (Ft. Worth)	$50.00
Repeated Courses Fee	$100.00 per hour
Room Application Fee (required, nonrefundable, residence hall students)	$150.00
Student Center Facility Fee (Stephenville)	$3.96 per hour with $39.60 maximum

2027 Summer Session Fees

Tuition Fee (see Note) (required)

Fee Type	Amount
GUARANTEED RATE	
Texas Resident – Undergraduate (1)	$199.92 per hour
Differential Tuition - College of Business	$30.60 per hour
Differential Tuition - College of Liberal and Fine Arts	$5.44 per hour
Differential Tuition - College of Agriculture and Natural Resources	$14.74 per hour
Differential Tuition – College of Education	$5.42 per hour
Differential Tuition – College of Science and Mathematics	$14.74 per hour
Differential Tuition - Criminal Justice	$32.18 per hour
Differential Tuition – Division of Health Sciences	$53.90 per hour

Differential Tuition - College of Engineering	$67.22 per hour
VARIABLE RATE	
Texas Resident - Undergradute (1)	$183.71 per hour
Nonresident – Undergraduate (1)	$611.71 per hour
Differential Tuition - College of Business	$29.14 per hour
Differential Tuition - College of Liberal and Fine Arts	$5.18 per hour
Differential Tuition - College of Agriculture and Natural Resources	$14.04 per hour
Differential Tuition - College of Education	$5.16 per hour
Differential Tuition - College of Science and Mathematics	$14.04 per hour
Differential Tuition - Criminal Justice	$30.65 per hour
Differential Tuition - Division of Health Sciences	$51.34 per hour
Differential Tuition - College of Engineering	$64.02 per hour
GRADUATE RATE	
Texas Resident (1)	$241.90 per hour
Nonresident – Graduate (1)	$669.90 per hour
Differential Tuition - College of Business	$26.22 per hour
Differential Tuition - College of Liberal and Fine Arts	$5.11 per hour
Differential Tuition - College of Agricultural and Natural Resources	$14.04 per hour
Differential Tuition - College of Education	$5.11 per hour
Differential Tuition - College of Science and Mathematics	$14.04 per hour
Differential Tuition- Criminal Justice	$2.72 per hour
Differential Tuition - Division of Health Sciences	$51.34 per hour
Differential Tuition - College of Engineering	$51.34 per hour

Fee Type	**Amount**
University Services Fee - Undergraduate	$96.01 per hour
University Services Fee - Graduate	$123.50 per hour
Excessive Hours Fee	$100.00 per hour
Health Service Fee	$4.91 per hour with $25 maximum
Intercollegiate Athletics Fee	$36.75 per hour with $477.75 max
Recreational Sports Fee (Required Stephenville)	$50.00
Recreational Sports Fee (Required Fort Worth)	$20.00
Repeated Courses Fee	$100.00 per hour
Room Application Fee (required, nonrefundable, residence hall students)	$150.00
Student Center Facility Fee (required, Stephenville)	$3.96 per hour with $19.80 maximum

[1] The selection option for Guaranteed or Variable Tuition Rate applies to Texas Residents, New Incoming and Transfer students.
Undergraduate Variable Tuition Rate will be assigned to Nonresident (Texas) and International students. Students who are nonresident will be assigned the Out of State Tuition Rate.
Graduates Tuition Rate will be assigned to Texas Resident Graduate students. Graduate students who are nonresident will be assigned the Out of State Tuition Rate.

Explanation of Fees

Please Note: The following fees are required of all students, regardless of classification (undergraduate or graduate) or type of housing (on- or off-campus) with the exception of fees designated by campus: Tuition, University Services, Student Center Facility (Stephenville), Health Service, Intercollegiate Athletics, Recreational Sports Fee (Stephenville and Ft.Worth). Students enrolled at the RELLIS Campus will follow tuition policies for that campus and are charged according to the tuition and fee rates for the RELLIS Campus.

The following are payable on an installment basis in the regular semesters.

- GUARANTEED TUITION FEE. This fee is assessed per semester credit hour. The selection option for this rate applies to new incoming and transfer Texas resident students only.
- VARIABLE TUITION FEE. This fee is assessed per semester credit hour. The Variable Tuition Rate will be automatically assigned for non-residents of Texas, including those who are not U.S. citizens, as well as Graduate students. See “Determination of Residence for Tuition Purposes” in this section for more information.
- UNIVERSITY SERVICES FEE. This fee is assessed is per semester credit hour. It funds services such as advising, student services, technology, library, distance education and outreach programs as well as other administrative services such as ID services and records services.
- DIFFERENTIAL TUITION. This fee is assessed per semester credit hour based on the College and/or Department and is used to enhance the academic programs under the College and/or Department.
- EXCESSIVE HOURS FEE. This fee is assessed per semester credit hour to students with excessive semester credit hours towards a degree program. Reference Texas Education code § 54.014 which provides a limit on the number of hours an undergraduate Texas resident may attempt while paying in-state tuition. For more information, please visit www.tarleton.edu/registrar.
- HEALTH SERVICE FEE. This fee is assessed per semester credit hour and is used to cover costs of the Student Health Center.
- INTERCOLLEGIATE ATHLETICS FEE. This fee is assessed per semester credit hour, up to the maximum per semester, and is used to support intercollegiate athletics at Tarleton State University.
- INSTALLMENT FEE. The Texas Education Code includes a provision for students to pay tuition and certain designated fees on an installment basis. Students may elect to pay in full or in installments. Students who elect to pay on the installment plan will be charged a $20 installment fee per semester and will be required to complete an installment agreement.
- LABORATORY FEE. A fee of not less than $2 and not more than $30 for each laboratory course may be charged for materials and supplies.
- LATE REGISTRATION FEE. Students who do not register during the early registration period will be charged a $25 late registration fee.
- LATE PAYMENT FEE. Students not making an installment payment by the due date will be charged a late payment fee of $10. Students who are delinquent more than five days may be prohibited from registering for classes and may be blocked from all University services.

- PARKING PERMIT. Students who wish to park a vehicle on any part of Tarleton property on the Stephenville and Fort Worth Campuses will pay a parking fee each long semester.
- RECREATIONAL SPORTS FEE. This fee is charged on the Stephenville and Fort Worth campuses. The Stephenville Campus fee of $100 per regular semester and $50 per summer semester is used to fund debt service requirements and operational costs of the facility. The Fort Worth Campus Fee is $50.00 per regular semester and $20.00 per summer semester.
- STUDENT CENTER FACILITY FEE. This Stephenville Campus fee is assessed by semester credit hour and is used to cover operational costs of the facility.
- REPEATED COURSES FEE (3-PEAT). This additional course fee will be assessed per semester credit hour to those students who have attempted the same course for a third time since Fall 2002. This provision is described in the Texas Higher Education Coordinating Board Rules (Chapter 13, Subchapter B, §13.25). For additional information please visit www.tarleton.edu/registrar.

ROOM & MEALS FEES. All students living in the residence halls are required to pay for meals, in addition to room-rent fees. Meals are provided in modified cafeteria style during specific meal hours. Evening meals will not be served on days preceding holidays and end of semester or summer sessions. Room and meal rates and meal times are published on the Residence Life web page at www.tarleton.edu/housing/ (https://www.tarleton.edu/housing/).

Payment of Fees

All of the aforementioned fees must be paid by a designated due date. Student account information is available through Texan Bill Pay. Services offered include: 24/7 access, E-bills, On-line Payment Plan enrollment, and Authorized User access. Payment due dates are also displayed via DuckTrax at www.tarleton.edu (http://www.tarleton.edu/) and on Business Services web page at www.tarleton.edu/business (http://www.tarleton.edu/business/). The following options are available for fee payment:

- OPTION 1. Payment in full by the designated date.
- OPTION 2. Enroll in a payment plan (multiple plans available) by the designed date.

Each student who elects option 2 must enroll in the Payment Plan through Texan Bill Pay. Students who fail to make tuition and fees payment by the due date may be prohibited from registering for classes for a succeeding semester until payment is made. Moreover, nonpayment prior to the end of the semester means the student may be denied credit for the work done that semester.

Refunds

Students who have paid fees in full and withdraw from the University will receive refunds for tuition, university services fee, health service fee, student center facility fee, intercollegiate athletics fee, recreational sports fee, excessive hours fee, international student service fee, repeated courses fee, and laboratory fees. Students paying on an installment basis and who withdraw from the University will be required to pay the balance of fees due. The refund schedule is as follows:

Session Length 10 Weeks or Greater

Session	Percentage
Prior to first class day	100%
During first five class days	80%
During second five class days	70%
During third five class days	50%
During fourth five class days	25%
After fourth five class days	0%

Session Length Greater than 5 Weeks and Less than 10 weeks

Session	Percentage
Prior to 1st class day	100%
During first, second, or third class day	80%
During fourth, fifth, or sixth class day	50%
After sixth class day	0%

Session Length 5 Weeks or Less

Session	Percentage
Prior to 1st class day	100%
During first class day	80%
During second class day	50%
After second class day	0%

Withdrawing From All Courses at the University

Effective Withdrawal Date is the date the withdrawal is reported to and recorded in the Registrar's Office.

Dropped Classes

(Student remains enrolled in one or more courses at the University.) Effective Drop Date is the date the drop is recorded in the Registrar's Office.

1. If a course is dropped on or before the census date for the appropriate session, the student will be refunded for the tuition and fees associated with that course.
2. If a course is dropped after the appropriate census date, the student will not receive a refund.

Census dates for various length sessions are as follows:

- 3 week session 2nd class day
- 5 week session 4th class day
- 8 week session 6th class day
- 10 week session 7th class day
- 15 or more week session 12th class day

Special notes: For refund purposes, class days are determined by the calendar, not by the number of class meetings. As an example, if a semester starts on Monday, Thursday of that week is considered the 4th class day for all classes.

Those fees paid by Tuition Assistance or another third party receivable will be refunded to the military or other organization if a refund is due.

Tarleton's refund policy is in accordance with mandates of the state of Texas.

Conditions of Refunds

Refunds of tuition and fees will not be made until 10 days have elapsed from the date the fees were paid. Refunds of tuition and fees paid by a sponsor, donor, scholarship or by credit card will be made to the source rather than directly to the student who has withdrawn if the funds were made available through the University. All student services and privileges shall terminate when a student withdraws or graduates from the University.

Nonrefundable Fees

Fees required for special courses, parking, installment plan fee, reinstatement and late registration fee are non-refundable.

Room Rent and Meal Fees

Refund to students withdrawing prior to the first class day will be based on the contract's cancellation policy. Refunds to students withdrawing on or after the first class day will be based on a daily proration, less an early withdrawal fee equaling 10 percent of the semester room/meal rate. The effective date of withdrawal will be the date written on the signed Room Condition Sheet from the student. If improper checkout occurs, Residence Life will determine the effective date.

Texan Bucks

Texan Bucks is a prepaid, stored-value account connected to your Texan Card. It provides a convenient, cashless way to pay for purchases both on and off campus. All student accounts are automatically set up with a Texan Bucks plan at the start of the first semester, beginning with a balance of $0.00.

Cash withdrawals are not permitted. To close your account, you must submit a written request. Refunds are subject to a $15.00 withdrawal fee and may take several weeks to process.

Dormant Account Balances:
Any account with a remaining balance must be remitted to the State of Texas on the earlier of (1) three years from the date the account was issued if never used, or (2) three years from the card's last activity.

Miscellaneous Fees

Reinstatement Fee

A student who has been dropped from the rolls of the University and has been approved for reinstatement will be charged a fee of $100.

Unpaid Check (Returned Check)

If a check accepted by the University is returned unpaid by the bank on which it is drawn, the person presenting it will be required to pay a penalty of $30 in addition to the amount of the returned item. If a check that is accepted by the University and processed by ACH (automated clearing house) or by eCheck (Electronic check through Texan Bill Pay), is returned unpaid by the bank on which it is drawn, the student account to which the original payment was applied will be charged a penalty of $30.00 in addition to the amount of the returned item. The student's registration may be placed on hold. The returned check may be turned over to the County Attorney for collection.

Credit Card

The service charge for payments made by credit/debit card is 3.0%. All debit card payments will be processed as a credit card and will be assessed the service fee.

Third Party Exam Proctoring

Students should be advised that if a course requires third-party exam proctoring and/or verification of identity, they may incur additional charges payable at the time service is provided. This type of charge will not be applied to the student bill and should be paid directly to the third party vendor.

Questions regarding fees and refunds should be directed to the Tarleton State University Business Office: (254) 968-9107.

Determination of Residence for Tuition Purposes

Residency status is based on information obtained from the student's application for admission. It is the student's responsibility to answer all questions on the application for admission accurately and honestly. If a student believes their residency status is incorrect or that it has changed, it is the student's responsibility to report this to the Admissions Office.

Additional documentation may be required to establish Texas residency. Residency rules are subject to change at any time due to Texas legislation.

The student has the burden of proof to show by clear and convincing evidence that residence or domicile, as appropriate, has been established and maintained according to the rules.

The 36 Month Provision: An individual who resided in Texas for the 36 consecutive months leading up to their graduation from a Texas high school or recipient of a GED, and continued to maintain a residence in Texas for the 12 months leading up to their enrollment in an institution of higher education may be classified as a resident for tuition purposes, regardless of dependency or immigration status. Undocumented students must submit the Affidavit of Intent to Become a Permanent Resident and an official high school transcript.

Students who do not meet the criteria of the 36 Month Provision may qualify for residency according to one of the following categories.

Independent Students Establishing Residency in Texas

Independent students are those who provide more than half of their own financial support and are not eligible to be claimed as a dependent for income tax purposes.

Establishment of a Domicile

In order to qualify for residency for tuition purposes, an independent student must reside in Texas while meeting one of the following for the twelve consecutive months preceding the student/applicant's enrollment:

1. Significant Gainful Employment:
   a. An employer's statement of dates of employment in Texas (beginning and current or ending dates) that encompass at least 12 consecutive months prior to the census date of the term in which the person enrolls or pay stubs for 12 consecutive months prior to the census date, reflecting significant gainful employment in Texas, or proof of other earned income such as pensions, veteran's benefits social security, and savings from previous earnings for 12 consecutive months prior to the census date. However, employment conditioned on students status, such as work study, the receipt of stipends, fellowships, or research or teaching assistantships does not constitute gainful employment.
   b. For a person who is unemployed and living on public assistance, written statements from the office of one or more social service agencies located in Texas that attest to the provision of services fto the person for the 12 consecutive months prior to the census date of the term in which the person enrolls

2. Residential Real Property - Sole or joint marital ownership of residential real property in Texas with documentation to verify 12 consecutive months of ownership prior to the census date of the term in which the person enrolls, such as a Warranty Deed, with the person (or the dependent's parent) having established and maintained domicile at that residence.
3. Marriage to a Person who has Established and Maintained Domicile in Texas marriage Certificate or Declaration of Registration of Informal Marriage with documentation to support that spouse has established and maintained domicile in Texas for 12 consecutive months prior to the census date of the term in which the person enrolls.
4. Ownership of a Business Entity: Documents that evidence the organization of the business in Texas that reflect the ownership interest of the person (or dependent's parent), and the customary management of the business by the person (or dependent's parent) without the intention of liquidation for the foreseeable future.

Maintenance of Domicile

A person who established domicile through the previous section and continues to resident in the State of Texas, except for temporary absences, is considered to have maintained domicile in Texas for that period of time unless he or she takes specific steps to change his or her domicile toa different location. Students must also provide documentation that supports they have been residing in the state for twelve consecutive months, including, but not limited to driver's license, utility bills, vehicle registration, etc.
Additional information could be requested based on the evaluation of the documentation provided.

Dependent students

The residency for tuition purposes of a student who is not independent is based upon that of the parent or court-appointed legal guardian who claims that student as a dependent or provides more than half that student's financial support, regardless of the length of time the student has resided in Texas. If the parent or court-appointed legal guardian of a dependent student meets the criteria of having established residency for tuition purposes, the dependent student is eligible to pay resident tuition. Parents and legal guardians qualify for residency following the same criteria as independent students.

Military personnel and dependents of military personnel

Resident military personnel and their dependents are classified as residents, provided they maintain Texas as the Official Home of Record with the military service. Non-resident military personnel must submit certification of active duty in Texas at each registration to be eligible for resident tuition rates. The Active Duty Military/Dependent Certification Form (https://www.tarleton.edu/admissions/forms/) can be completed and submitted to Undergraduate Admissions or Graduate Studies for review. The spouse or child of a member of the Armed Forces of the United States who has been assigned to duty elsewhere immediately following assignment to duty in Texas is entitled to pay the tuition fees and other fees or charges provided for Texas residents as long as the spouse or child resides continuously in Texas. Non-resident military personnel who have separated or retired from military service while stationed in Texas and who intend to remain in Texas may be classified as residents provided certain actions are taken by the soldier one year prior to enrollment. Please contact the Undergraduate Admissions Office or Graduate Studies for information.

International Students

International Students/applicants who are eligible to establish a domicile in Texas may also qualify for Texas resident status if they hold a certain Visa type. F-1 Visa holders are not eligible. Please contact the Admissions Office or Graduate Studies for further information.

Residency Reclassification

A student classified as a non-resident retains that classification until they request reclassification in writing and provide proof of residence to the Admissions Office. An Application for Reclassification can be found on the Admissions website or requested from the Admissions Office. Applications for reclassification must be submitted prior to the official census date of the relevant term. The student has the burden of proof to show by clear and convincing evidence that residence or domicile, as appropriate, has been established and maintained according to the rules.

Additional residency paths/waivers and forms can be found at https://www.tarleton.edu/admissions/residency/ or by contacting the Admissions Office at 254-968-9125 admissions@tarleton.edu or Graduate Studies at 254-968-9104 or gradinfo@tarleton.edu. The Texas Administrative Code (https://texreg.sos.state.tx.us/public/readtac$ext.ViewTAC/?tac_view=5&ti=19&pt=1&ch=21&sch=B&rl=Y) can provide more information about the termination of resident status.

Financial Aid

The Office of Financial Aid and Office of Scholarships offers student financial aid to help assist with your educational expenses while attending Tarleton State University. Financial aid comes in several forms to help students cover the cost of attending college:

- **Scholarships** – Funds you don't have to repay, usually awarded based on academic achievement, talent, or other criteria.
- **Grants** – Need-based aid that does not require repayment.
- **Student Loans** – Borrowed funds that must be repaid with interest after leaving school.
- **Student Employment (Work-Study)** – Part-time jobs that allow students to earn money to help pay for educational expenses.
- **Exemptions & Waivers** – Reductions in tuition or fees for students who meet specific eligibility criteria.

Free Application for Federal Student Aid (FAFSA)
To apply for financial aid, a student must submit a Free Application for Federal Student Aid (FAFSA) each year. The FAFSA is for US Citizens and eligible non-citizens. To access the online FAFSA you must go to www.studentaid.gov. A student and parent (of dependent students) must first apply for their FSA ID. The FSA ID is a unique federal identifier that allows you to complete the FAFSA, make FAFSA corrections, and access your federal financial aid history. The FSA ID is also accessed through the www.studentaid.gov website.

For the FAFSA to process successfully, consent must be provided by all required contributors (student, parent, parent spouse, and/or student spouse) on the FAFSA. This allows the Federal Tax Information (FTI) transferred from the IRS to be provided to higher education institutions, state higher-education agencies, and designated scholarship organizations. Consent is provided once for the academic year and cannot be revoked in that academic year. This consent is necessary even if the contributor does not have a Social Security Number (SSN), did not file taxes, or filed taxes in another country.

Texas Application for State Financial Aid (TASFA)
In some cases, you may be able to only file the Texas Application for State Financial Aid (TASFA). Certain categories of foreign-born and immigrant students in the State of Texas can meet state requirements for residency under Texas Education Code. This state law allows House Bill 1403 and Senate Bill 1528 students to pay the resident tuition rate while attending public institutions of higher education in Texas, and be classified as state residents for tuition purposes. A student must be lawfully present in the U.S. to be considered a Texas resident. As Texas residents, such students are eligible to apply for some student financial aid programs offered by the State of Texas. The TASFA is accessed on our Financial Aid website at www.tarleton.edu/finaid or by visiting www.myfuturetexas.com.

Priority Dates

Priority for campus-based funding is given to students who meet certain income eligibility requirements and have submitted their FAFSA on or before January 15, 2026 for priority consideration. The FAFSA becomes available to begin filing October 1 of each year.

Deadline

In order to ensure that your financial aid will be available by the week before fall semester classes, you must have submitted all required documents no later than June 1.

Applicants are responsible for the timeliness and promptness of their applications.

Grants

Grants are awarded based on financial need and are funded by the federal government, State of Texas, and institutional funding. This form of financial aid does not require repayment. To be considered for a grant, complete the FAFSA or the TASFA. TASFA students are not eligible for federal grants.

Federal Pell Grants

Pell Grants are available to eligible undergraduates who have not already earned a bachelor's degree and demonstrate financial aid on their FAFSA. Pell Grant funds are disbursed based on number of hours enrolled as of the Pell Census date (or the 12th class day). All other sources of aid will be given in addition to the Pell Grant.

Federal Supplemental Educational Opportunity Grants (SEOG)

These grants, ranging from $100 to $4,000 per year, are available to help needy undergraduates meet education expenses. Funding is limited.

The Texas Public Education Grant (TPEG)

This grant was established by the Texas State Legislature to help needy undergraduate and graduate students. Under this program, students may receive grants ranging from $100 and up. Funding is limited.

Toward Excellence, Access and Success (TEXAS) Grant Program

The TEXAS Grant Program was established in 1999 by the Texas Legislature to provide need-based financial assistance to resident Texas students who completed the Recommended or Distinguished high school program. Eligible students may receive an amount up to the cost of required tuition and fees each academic year of eligibility. Some restrictions apply.

To be eligible for the TEXAS grant, a student must be a Texas resident and graduate from a public or accredited private high school and must demonstrate exceptional financial need as determined by the FAFSA or TASFA. For 2026-2027, January 15, 2026 is the state priority deadline for identifying eligible students to be given priority in receiving awards through this state financial aid program. Detailed information is available on the Office of Financial Aid website at www.tarleton.edu/finaid.

Tarleton Tuition Grant

These grants are available to undergraduate students who are Texas residents and demonstrate need based upon data provided on the FAFSA. Priority is given to those students who file the FAFSA by the priority deadline. Funding is limited.

Teacher Education Assistance for College and Higher Education (TEACH) Grant

The Teacher Education Assistance for College and Higher Education (TEACH) Grant Program provides up to $4,000 per year in grants for graduate and undergraduate students who intend to teach full-time in high-need subject areas for at least four years at low income secondary or elementary school(s) (https://studentloans.gov/myDirectLoan/tcli.action/). To be considered for a TEACH grant, you must be formally admitted to one of the following TEACH Grant eligible programs of study at Tarleton State University:

Undergraduate: Bachelor of Science in Elementary Teacher Education or Bachelor of Science in Secondary Teacher Education
Graduate: Master of Science in Curriculum and Instruction
Eligibility requirements and the TEACH Grant Application are located on the Office of Financial Aid website at www.tarleton.edu/finaid.

Tarleton Promise Grant

The Tarleton Promise Program will cover the remaining bill after a qualifying student's scholarships and grants are applied to their account. The Promise Grant will pay for tuition and required fees (including parking), Tarleton meal plan, and book allowance. Tarleton Promise Grant requirements are located on the Office of Financial Aid website at www.tarleton.edu/finaid.

Children of Fallen Heroes and Iraq and Afghanistan Service Grant Maximum Pell Grant Eligibility

Starting with the 2024-2025 award year schools will no longer award Iraq and Afghanistan Service Grants (IASG) or special grants for Children of Fallen Heroes. Rather than receiving one of these awards, the student will receive a maximum Pell Grant award. The federal government has established a lifetime limit of no more than 12 semesters (or its equivalent) for eligible students. On the 2025-2026 FAFSA, there is a question regarding any parent who may have lost their life either while on duty in the military after September 11, 2001, or while performing duties as a public safety officer. If checked yes, you will be asked for documentation to confirm that you are eligible for consideration of this award.

Eligibility:

- The child of a parent or guardian who died in the line of duty while (a) serving on active duty as a member of the Armed Forces on or after September 11, 2001; or (b) actively serving as and performing the duties of a public safety officer and
- Less than 33 years old as of January 1 prior to the award year for which the applicant is applying (e.g., for the 2025-2026 award year, a student must be less than 33 years old as of January 1, 2025, to be eligible)

Student Employment Opportunities

Work-Study

Federal Work-Study and Texas College Work-Study are supported by the federal and Texas governments, and provide students with an opportunity to help cover educational expenses through part-time employment. Work-Study positions are available on-campus at numerous departments as well as off-campus at selected non-profit employers. Off-campus positions are community service-based employment positions that are part of the Community Service Work-Study Program. Students must show financial need (must complete the FAFSA or TASFA) to be eligible for work-study. Funds are awarded on a first-come, first-serve basis with priority awarding given to students currently/previously employed under the college work-study programs. All wages are on an hourly basis, and work schedules are arranged around class schedules.

Intern 2 Learn Program

Intern 2 Learn is an innovative, **on-campus student employment program** for undergraduates. The program is designed to provide relevant work experience and qualify as a R.E.A.L. (Real World Experience Applied to Learning) internship for participating students. The best part is that the program benefits both students and employing departments! Interns work in positions related to their academic curriculum and are eligible to **promote to higher levels of responsibility and pay** as their experience and knowledge levels grow. Employing departments enjoy the opportunity to mentor and coach student interns so that they function as additional staff.

Intern 2 Learn Program Provides:

- Opportunities to work on-campus where supervisors understand academic schedules and demands
- R.E.A.L. participation; adding to your learning experience at Tarleton State University
- Resume building experience to give you a head start on your chosen career

Graduate Assistantship

Assistantships for graduate students are available in most academic departments that offer a master's program as well as other university support areas. Most assistantships require teaching, laboratory instruction or research. As assistantships are awarded by each department, applications should be directed to the head of the department in which the applicant studies.

How You're Paid

Students employed on Work-Study and Intern 2 Learn are paid via biweekly paychecks. Graduate assistants are paid monthly.

Loan Programs

Federal Direct Loan Program

Federal Direct Loans are student loans that must be repaid and are available to both undergraduate and graduate students.

A subsidized loan is awarded on the basis of financial need. If eligible for a subsidized loan, the government will pay (subsidize) the interest on the loan while the student is in school and for the first six months after leaving school (grace period). However, for subsidized loans first disbursed on or after July 1, 2012, and before July 1, 2014, the student is responsible for the interest that accrues while the loan is in the grace period. For an unsubsidized loan, the student is responsible for the interest from the time the unsubsidized loan is disbursed until it is paid in full.

First time student loan borrowers must complete the Entrance Loan Counseling and the electronic Master Promissory Note (MPN) before TSU can release the first disbursement of their Federal Direct student loan. Both entrance loan counseling and the MPN are completed at www.studentaid.gov.

Annual Undergraduate loan limits may not exceed $5,500 (of which no more than $3,500 may be subsidized) for freshmen; $6,500 (of which no more than $4,500 may be subsidized) for sophomores; and $7,500 (of which no more than $5,500 may be subsidized) for juniors and seniors. Annual Graduate student loan limits are limited to $20,500 in unsubsidized loans. In addition, students must be enrolled in at least 6 semester hours to qualify.

The aggregate federal loan limit for dependent undergraduates is $31,000 (of which no more than $23,000 may be subsidized). The federal loan limit for independent undergraduates is $57,500 (of which no more than $23,000 may be subsidized). The federal loan limit for graduate students is $138,500 and includes all federal loans borrowed as an undergraduate student.

Students begin repaying Federal Direct Student loans six months after they drop below half-time enrollment or graduate from college.

Parent Loan for Undergraduate Students (Parent PLUS)

Parent Loans are made by the Department of Education to eligible parents to assist in meeting education costs. Parents must be US Citizens or eligible non-citizens and receive credit approval. Parents, on behalf of their dependents, may borrow the annual loan limit of the cost of education, less other financial aid. Fees charged to the PLUS borrower are deducted form the loan proceeds when the money is sent to the student’s school. Parents may apply at www.studentaid.gov.

Graduate PLUS Loan

The Direct Graduate PLUS Loan (Grad PLUS) is available to U.S. citizens and permanent residents. Graduate students may borrow up to the full cost of attendance less other financial aid you are receiving. The Direct Graduate PLUS Loan is credit-based and requires credit approval. Direct Graduate PLUS loans are not based on need, however require filing of FAFSA. Graduate students may apply at www.studentaid.gov.

Private Loans

Private Loans are provided by lending institutions and are not in any way related to the loan programs offered by the Federal Department of Education. Private loans offer a funding alternative for students and parents. While using a private lender is an option, it is in the students' best interest to apply for Federal, State, and Institutional Aid before considering this option. The benefits of applying for Federal Direct student loans over a Private/Alternative loan include lower interest rates and greater repayment options. Many Tarleton State University students use www.ELMselect.com to search for a private student loan lender.

Short-Term Loans

Short-Term loan funds at Tarleton State University were established to provide assistance to students who are experiencing temporary financial difficulty in connection with educationally related expenses. These loans must be repaid with interest and/or service charge within the prescribed repayment period. It is not the intent of this program to supplement or to replace long-term aid or assistance offered by the Office of Financial Aid. Short Term loans are available while school is in session and applicants must meet the requirements to be considered. Loan applications are online through myGateway.

Book Loans

Book loan funds at Tarleton State University were established to provide assistance to students who are experiencing temporary financial difficulty in purchasing their books. These loans must be repaid with interest and/or service charge within the prescribed repayment period. Book loans are available while school is in session and applicants must meet the requirements to be considered. Loan applications are online through myGateway.

Late Payments on Loans

When a student does not make payment on any outstanding loan by the due date, his/her records will be blocked immediately.

Post-Baccalaureate Financial Aid

Post-baccalaureate students (students who have already earned their first bachelor's degree) who are admitted into a degree program or preparatory program for admission into an undergraduate, or graduate degree program may be eligible for federal direct loans if they have not already reached the aggregate maximum federal loan amount. Federal Direct Parent PLUS loan (https://www.tarleton.edu/finaid/typesofaid/direct-plus/) funding may also be available for dependent undergraduate students. Post-baccalaureate students are **not** eligible for state or federal grant programs.

Who Is Eligible to Complete the Post-Baccalaureate Form?

1. Students who are not admitted into an undergraduate or graduate degree-seeking program and are taking pre-requisite coursework in order to be admitted into an undergraduate or graduate degree at Tarleton State University.
2. Students who have previously earned a bachelor's degree and are admitted into a second bachelor's degree program at Tarleton State University.

Post-Baccalaureate annual federal loan limits and form procedures can be found at www.tarleton.edu/finaid.

Cost of Attendance

Cost of Attendance (COA) is an estimate of typical expenses associated with attendance at Tarleton State University for one academic year (fall and spring semester). Areas evaluated within the cost of attendance include:

Direct Costs

- **Tuition and Fees**
  Tuition and fees will vary based on the hours that a student is enrolled in at Tarleton State University for an academic year. Cost of Attendance takes into account an estimated range for an average full-time student course load of 12 hours for undergraduates and 9 hours for graduate students. Total costs of tuition and fees for a year will vary by degree program, course types (ie: labs or courses with additional fees), and residency (in-state vs. out-of-state), and whether a student is on a guaranteed or variable tuition plan.
- **Housing and Food**
  Housing and food requirements will vary, as students have different on-campus dining and housing options to choose from. Cost of Attendance includes an estimate of housing and meals while attending Tarleton State University. Our estimate includes rent, food, utilities, and incidentals (snacks and household supplies).

Indirect Costs

- **Books and Supplies**
  The Cost of Attendance includes an estimate of the average cost for books, required course materials, computer-related expenses (excluding purchase of a computer), and educational supplies.
- **Transportation**
  Transportation expenses are estimated within the Cost of Attendance to include an average number of trips a student will take in an academic year. Actual transportation cost will vary with student travel requirements, total mileage and mode of transportation.
- **Personal Expenses and Miscellaneous**
  Entertainment and personal purchases are also included in the Cost of Attendance as well. These costs vary from person to person, based on lifestyle and preferences.

FAFSA Verification

If you have submitted your FAFSA and received a notification that you were selected for federal verification, you are not alone! About 1/3 of all FAFSA applications are selected for this process. Tarleton State's Office of Financial Aid is here to guide you! If you have been selected for verification, you must complete verification before you can receive any aid. All financial aid documents for verification or to determine student aid eligibility are submitted via https://tarleton.studentforms.com. Your financial aid eligibility could change because of corrections made during verification. If your eligibility changes, your financial aid awards will be adjusted, and you will receive a revised award letter or notification via email. More information is located on the Tarleton State Office of Financial Aid website at www.tarleton.edu/finaid.

What If I Don't Finish My Verification?

Your financial aid will not apply to your billing account until verification is complete, so please respond immediately to any requests from our department. Should you fail to submit all required documentation, financial aid will not be awarded and/or disbursed.

Academic Eligibility Requirements for Financial Aid

Satisfactory Academic Progress Policy

Federal and state regulations require all students to make satisfactory academic progress (SAP) toward completion of degree, certificate or licensure requirements to receive student financial aid. All terms of attempted enrollment, including transfer hours, are considered in determining satisfactory academic progress regardless of whether aid was awarded for the term. Failure to meet satisfactory progress standards results in ineligibility for all types of federal, state, and university aid administered by the Office of Financial Aid at Tarleton State University.

Evaluation Period

Monitoring satisfactory academic progress begins with the first credit attempted and is done at the end of fall and spring semesters.

Qualitative Standard: Grade Point Average (GPA)

Attempted credits include all courses on student records after the 12th class day, including withdrawals, incompletes, repeats, noncredit and remedial courses. TSU's satisfactory progress policy requires that students achieve the following **cumulative** grade point averages:

Undergraduate Students: 2.0 Graduate Students: 3.0

Quantitative Standard (Pace): Completion Percentage (Deficit Hours)

Financial aid standards require students to satisfactorily complete a minimum of **67%** of their total cumulative attempted credits. This percentage includes all institutional and transfer credit hours, regardless of whether or not financial aid was received. Hours successfully completed include those with grades of A, B, C, D, P and S. Grades of F, I, K, Q, W, WF, U, NG and grad exclusions are not considered to be adequate grades for completion. The calculation used to determine the completion rate:

$$\frac{\text{Total Hours Successfully Completed}}{\text{Total Hours Attempted}} = \text{Completion Rate}$$

Quantitative Standard: Maximum Hours Attempted (Excessive Hours)

Students are expected to complete their degree pursuits within a maximum timeframe, including transfer hours earned as well as institutional attempted credits. Credits attempted to complete a degree and receive financial aid cannot exceed **150%** of the credits required to complete the degree program. Credit hours are cumulative; thus, students obtaining more than the maximum hours (e.g., change in major) may reach this maximum timeframe before completing their course of study and may need to appeal the timeframe eligibility. **Excessive hours will depend on your specific degree program and credit hour requirements for completion.** The majority of students may not receive financial assistance beyond the following:

Undergraduate Students:	**180 Hours**
Graduate Students:	**54 Hours**
Doctoral:	**108 Hours**

Failure to Meet Standards

If at the end of each semester, a student fails to meet any of the above Satisfactory Academic Standard(s), he/she will be placed on financial aid suspension for each standard not being met.

Satisfactory Academic Progress (SAP) Appeals

Financial aid suspension status may be appealed to the Office of Financial Aid. Appeals are made on the basis of extraordinary or mitigating circumstances (including but not limited to major illness, death in the family, serious accident, etc.) or the successful completion of additional coursework. The appeal must state why the student failed to make satisfactory academic progress and what has changed in the student's situation that would allow the student to demonstrate satisfactory academic progress by the end of the following semester. Each case is reviewed individually. The Office of Financial Aid informs the student in writing of its decision, provided adequate documentation was submitted by the student. Each appeal is reviewed on a case-by-case basis.

If the appeal is approved, financial aid eligibility will be reinstated for a **probationary semester**. Written notification (financial aid contract) will include the standards the student is expected to meet in order to retain financial aid eligibility at the end of the semester.

If at the end of a probationary semester, the student meets TSU's **probationary term requirements** but has not met TSU's cumulative standards, TSU will permit the student to retain financial aid eligibility under a "continued probation" status. Probation status continues to be monitored each semester until the student meets TSU's **cumulative** standards for completion percentage and grade point average (GPA), at which time the student will be returned to "good standing".

If a student on "continued probation" status fails to meet TSU's cumulative standard(s) or the standards required for the **probationary semester**, TSU will suspend the student from financial aid eligibility.

If an appeal is denied, written notification will state the reason(s) for the denial and the process of appealing the denial.

Notification

Students who fail to meet the minimum standards will be notified by email (Tarleton.edu email) when they are placed on probation or suspension. It is possible for students to be placed on financial aid suspension for failure to meet more than one type of Satisfactory Academic Progress standard. Students who have not received financial aid in the past are immediately subject to standards when they apply for financial aid.

Re-Establishing Eligibility After Financial Aid Suspension

Students whose financial aid eligibility has been suspended may regain eligibility only through TSU's appeal process or when they meet the institution's satisfactory academic progress **quantitative** and **qualitative** standards. If Incomplete (I) hours are a factor in failure to maintain satisfactory progress, subsequent successful completion of these hours may be used to re-establish eligibility for aid. Paying for classes out of pocket or sitting out a period of time in and of itself is not sufficient to re-establish a student's financial aid eligibility.

Course Program of Study (CPoS)

This requirement will be effective beginning Fall 2025.

The U.S. Department of Education (ED) regulations require that a student must be enrolled in a degree-seeking program to receive **federal** financial aid (grants, loans, work-study). Funds will only be disbursed for the courses needed to fulfill the program of study requirements.

Effective Fall 2025, students enrolling in courses that are **not required** to complete their officially declared major and/or required minor could see their financial aid prorated and/or cancelled as required by the Department of Education. Course Program of Study (CPoS) is the process that is run to identify courses within a student's program of study. This technology will compare the courses a student registers for each term with the degree requirements listed on their DegreeWorks degree audit. Courses that do not apply towards a student's officially declared program of study will be ineligible for federal financial aid. CPoS was designed, and has been found, to help students finish their degree program faster by focusing on the completion of coursework tied directly to their program of study. Timely degree completion also reduces student costs, including debt a student may choose to take on to graduate.

More information about CPoS can be found on the Office of Financial Aid website at www.tarleton.edu/finaid.

Repeated Courses

Students who repeat a course may receive financial assistance more than once for enrollment in the same course. When a course is repeated, each enrollment is included in calculating the percentage of successfully completed hours and the total number of attempted hours is used to determine length of eligibility. For example, a student enrolls in a three hour course, fails it and the following semester re-enrolls in the same course and earns a C. That student would have

enrolled in in six hours, but successfully completed only three hours. Repeating a course more than once results in removal of only one previous grade from the GPA calculation.

Federal regulations also stipulate the way enrollment status is determined for students who are repeating coursework in which they previously received a letter grade of D- or higher. An institution may pay a student one time for retaking previously-passed coursework. To determine a student's enrollment status (full-time vs. part-time), the school may not include more than one repetition of a previously passed course.

Example: Two years ago, Sam enrolled in a 3-hour Applied Mathematics course and received a grade of D-. Sam took the same course again last year and received a grade of C-. His major requires that he pass the class with a C or better, so Sam decides to take the course again this semester. Sam is enrolled in 9 hours of other coursework plus the Applied Math class, for a total of 12 hours. The 3 hours of that class are not included in determining Sam's enrollment status for the current semester because it is the second time he is repeating a class in which he previously received a "passing" grade. Sam would be paid financial aid as a part-time student because he is enrolled in 12 hours minus the 3 hours of the course he's repeating for the second time, which do not count. For financial aid purposes, Sam is enrolled in 9 eligible hours.

Withdrawing or Dropping Classes

If you withdraw from all classes, either officially or unofficially, on or before completing the term and you have received Title IV federal funds in the form of a Federal Pell Grant, Federal Supplemental Educational Opportunity Grant (SEOG), Teacher Education Assistance for College and Higher Education (TEACH) Grant, Federal Direct loans, or a Federal PLUS loan, the federal government requires that we review your eligibility for those funds. We are required to apply a federally mandated formula to determine how much of the federal funding was "earned" up to the time of withdrawal. This review and recalculation is called a "Return of Title IV Aid".

The Title IV funds that were disbursed in excess of the *earned* amount must be returned to the federal government by the university and/or you. The amount to be returned to the federal government will be calculated from the date you officially withdrew from classes or, in the case of an unofficial withdrawal, the last date you were involved in an academically related activity.

If funding has to be returned, you will be notified via email.

Unofficial Withdrawal Policy

Tarleton State University must determine whether a return of Title IV Financial aid is required when a student fails to attend or ceases to attend a class and does not withdraw. Tarleton faculty will monitor all student enrollment and report to the Office of the Registrar the following grades for students who unofficially withdraw from courses:

- F0 grade indicates a student who never attended a class
- FX grade indicates a student attended but stopped attending at some point in the semester and a date will be assigned as the last date of attendance for that class

At the end of each semester (fall/spring/summer) the Office of Financial Aid will review all financial aid students who have any combination of the above F0 or FX Grades and determine if the financial aid requires an adjustment. If an adjustment is required, the aid will be recalculated and the student will be notified immediately. Any reduction of financial aid will be reflected on the student's bill with the Office of Business Services.

If a student has a combination of all F0, FX, Q, and W grades, the student is considered a withdrawal and is subject to the Return of Title IV Funds (R2T4) calculation.

If we are required to reduce your financial aid, we must allocate funds in the following order:

- Unsubsidized Federal Direct Loans
- Subsidized Federal Direct Loans
- Federal Graduate Plus (Student) Loans
- Federal Parent (PLUS) Loans
- Federal Pell Grant
- Other federal loan or grant assistance
- Other state or institutional financial aid program

Official Census Date

The financial aid census date is the 12th day of the enrollment period. This means that if you are receiving Federal Pell Grant and you drop a class before the census date (12th day of the enrollment period) your Federal Pell Grant may be reduced. If you add a class following the census date, your Pell Grant will not be increased.

Financial Aid Disbursement

Financial aid is applied (disbursed) to student bills approximately 10 days before the first day of classes each term. Tarleton State University's Office of Financial Aid will check your enrollment status prior to disbursement of any financial aid funds. Tarleton will adjust aid based on enrollment status (hours enrolled).

Financial Aid Overawards

Federal regulations require colleges to consider all educational financial assistance to be calculated in determining student eligibility. If it is determined an over award has occurred and needs to be resolved, it may result in funds being returned to an aid program and the student owing the University money.

Financial assistance includes:

- Grants
- Loans
- Scholarships
- Waivers, fellowships & assistantships
- Work-Study
- Specific Veteran educational benefits
- Athletic Aid
- Programs used to cover postsecondary educational expenses

An overaward will be caused when a student receives more aid than their:

- Financial Need
- Enrollment eligibility
- Cost of Attendance

You will be notified to your tarleton.edu email if we have to adjust any financial aid due to an overaward that causes a balance due.

Financial Aid Displacement Advisory

Financial aid displacement occurs when a student's financial aid is reduced due to receipt of a private scholarship or other reasons identified in this advisory. This practice occurs in Texas and should be taken into consideration while applying for financial aid. The institution to which you are applying is providing in this application a list of recommendations describing how to maximize your financial aid and ensure that you are prepared when financial aid displacement occurs. You are encouraged to reach out to the institution to which you are applying to receive advice on how to avoid financial aid displacement.

A student's state-funded gift aid is most commonly revised or reduced because of:

- Additional gift aid received from a private source, such that the student's total gift aid exceeds financial need or cost of attendance.
- Reduced cost of attendance as a result of dropped classes, a change in housing status, or withdrawal from the institution, among other causes.
- Failure to meet satisfactory academic progress requirements or other merit-based criteria for the student's gift aid.
- A change in enrollment status that renders the student ineligible for certain gift aid programs.
- Failure to complete required administrative processes or submit documentation by established deadlines.
- A change in the student's Student Aid Index as a result of verification, updates, and/or corrections to the student's financial aid application which affects eligibility for some forms of gift aid or the amount of gift aid the student is eligible to receive.

For additional details, please refer to the Texas Higher Education Coordinating Board page Institutional Requirements TEC Section 56.0094(c). (https://www.highered.texas.gov/student-financial-aid-programs/financial-aid-displacement/)

Financial Aid Consortium

Tarleton State University participates in the Financial Aid Consortium program, which coordinates credit hours between partner institutions to financially assist students. Students may only receive financial aid from one institution during a term. Undergraduate students interested must be enrolled at Tarleton State University with a minimum of 3 hours for the fall, spring, or summer semester. Students must fill out a consortium agreement each semester they participate in the program and return the completed consortium agreement to the Tarleton's Office of Financial Aid prior to the 12th class day for processing.

- Courses taken at the community college (host institution) are verified by the Registrar's Office for transferability and use towards a degree plan.
- Students are encouraged to verify the transferability of their courses to Tarleton prior to submitting the consortium agreement. TCCNS Developmental and audited courses are not eligible for the financial aid consortium.
- Courses approved for the consortium agreement will be added to the students' Tarleton registration, increasing the number of hours they are registered for in a given semester.
- Tuition and fees will be charged separately for the courses taken at the respective community college (host institution).
- Make satisfactory academic progress as specified by the Tarleton State University Satisfactory Progress policy.

Financial Aid Consortium partners, forms, and instructions can be found on the Office of Financial Aid website at www.tarleton.edu/finaid.

Special and Unusual Circumstance Appeals

The FAFSA and TASFA uses prior-prior-year tax data to determine the Student Aid Index (SAI); however, we recognize that a family's financial situation can change within a two-year period. The Higher Education Act gives financial aid administrators the ability to update FAFSA to reflect the student and family's current situation, which can alter the SAI. The SAI is calculated by the information provided by FAFSA or TASFA. The SAI is emailed directly to students that complete FAFSA. Additionally, the SAI can be viewed on the FAFSA Submission Summary. You may also contact the financial aid office to discuss your SAI.

The following circumstances are acceptable for **Special Circumstance Appeals**:

- Loss or reduction of income (e.g., job termination, pay reduction, parental/spousal death, and child support reduction/loss)
- Divorce or separation
- Non-recurring income
- High medical and/or dental expenses paid out of pocket
- Impacted by a natural disaster

If you indicated "yes" to the question in the Student Unusual Circumstance portion of FAFSA, you are considered "provisionally independent". This designation means that you are not required to provide parental information on your FAFSA; however, the institution is required to review your circumstance to make a formal determination on your dependency status through an Unusual Circumstance Appeal. In this situation, the financial aid office will contact you to complete the appeal.

Unusual circumstances include (but are not limited to):

- Human trafficking
- Legally granted refugee or asylum status
- Parental abandonment or estrangement
- Student or parental incarceration

However, unusual circumstances **do not** include the following:

- Parents refuse to contribute to the student's education
- Parents will not provide information for the FAFSA or verification
- Parents do not claim the student as a dependent for income tax purposes
- Student demonstrates total self-sufficiency

Additionally, if your circumstances change and meet one of the criteria above, you may contact a financial aid counselor at 254-968-9070 or FINAID@tarleton.edu to discuss if you are eligible for this appeal.

More information about Special and Unusual Circumstance Appeals count be found at www.tarleton.edu/finaid.

Tuition and Student Fee Exemptions and Waivers

Texas provides various programs that exempt or waive tuition, fees, and other expenses related to attending public colleges and universities. All exemption and waiver programs are authorized by the Texas Legislature and target specific populations.

- **Exemptions** allow special groups of Texas residents or nonresidents to enroll and pay a reduced amount of tuition or fees.
- **Waivers** allow special groups of nonresidents to enroll and pay the Texas resident tuition or fee rate.

All exemption and waiver programs require a student to meet certain eligibility criteria. In addition to meeting the program criteria, a student's continued eligibility may be impacted by Senate Bill 1210 (Texas Education Code (TEC) Section 54.2001 (https://statutes.capitol.texas.gov/Docs/ED/htm/ED.54.htm#542001)). This section applies an excess hours' limitation for undergraduate students and Grade Point Average (GPA) requirement for both undergraduate and graduate students for exemption and waiver programs authorized under TEC, Section 54, Subchapter D.

All exemptions follow the state's definition for determining Texas resident status. Please review TEC 54.052 (https://statutes.capitol.texas.gov/Docs/ED/htm/ED.54.htm#54052) for the state's definition. Texas resident definitions and requirements have been updated to align with the federal ruling on Civil No. 7:25-cv-00055. (https://urldefense.com/v3/__https:/texasattorneygeneral.gov/sites/default/files/images/press/In*20State*20Tuition*20Final*20Judgment.pdf__;JSUlJQ!!KwNVnqRv!FmF-33Dnc2RrhSt9wZLTHzWoiGhLGg-rkbOE4vp6U2JEwBctayJyHfSpEnyNKhbi1bTjk9z2hiOH-qjnsGkiLkyzg-4/) In which a student must be lawfully present in the United States to receive financial aid.

Claims for exemption from any charges and/or fees must be supported by evidence sufficient to enable the Office of Financial Aid (or other responsible department) to verify the student's status and determine the duration of the exemption or waiver and the fees and charges to which it is applicable. Eligible students are responsible for payment of tuition and fees not covered under the exemption or waiver.

You may visit My TX Future (https://www.hhloans.com/types-of-financial-aid/) to view specific Exemption and Waiver information. **Please note: When visiting My TX Future you may see additional exemptions and waivers that may not be available at this time at Tarleton State University.** If you have questions about Tarleton State University Tuition and Fee Exemptions and Waivers, you may contact the Office of Financial Aid at finaid@tarleton.edu or (254) 968-9070.

Tarleton State University exemptions and waivers can be found at www.tarleton.edu.

Scholarships

The Tarleton State University Office of Scholarships is committed to providing assistance to students in pursuit of their education. Scholarships are awarded for academic ability and achievement, demonstrated leadership, ability to perform (music, band, etc.), extracurricular activities, financial need, and other criteria as defined by specific scholarship programs. Scholarship consideration for current Tarleton students has full-time status as a criterion unless otherwise defined by specific scholarship programs. More than 600 endowed, local, and departmental scholarships are available to students attending Tarleton State University. Some scholarships are awarded in specific academic areas, such as science, humanities, agriculture, and business.

Scholarship information and application forms may be obtained from the Office of Scholarships at www.tarleton.edu/scholarships/ (http://www.tarleton.edu/scholarships/). The Office can also be contacted by phone at (254) 968-9922.

Any student receiving institutional scholarships valued at $10,000 or more is generally not eligible for other institutional scholarships.

The Presidential Honors Program offers exceptional opportunities for outstanding students. Presidential Honors Scholars are given priority in such areas as pre-registration and housing assignments. They also enroll in two interdisciplinary Honors Seminars, participate in the Honors Degree Program, have the opportunity to travel to a professional meeting in their major field of study, and receive annual scholarships of $7,000 or $8,000. For more information, contact Dr. Eileen Faulkenberry, Dean of the Honors College, Box T-0545, Stephenville, TX 76402; (254) 968-1926.

Veteran Services

VA Education Benefits

The Veteran Services Center (VSC) serves students eligible for educational benefits from the Department of Veterans Affairs (VA). The VSC maintains records, and certifications are submitted to the VA on behalf of veterans, dependents, and service members enrolled at the University. The institution does not prohibit attendance or impose penalties while awaiting VA Payments, per 38 U.S.C. § 3679(e)(1)A&B.

The VA determines students' monthly payments based on several factors, such as eligibility percentage, remaining entitlement, method of instruction, and rate of pursuit (RoP). The VA defines the RoP as the student's overall training time within each enrollment period, not each semester. An enrollment period runs from the first day of the term to the last day of final exams for that specific term. The VA holds sole authority to determine RoP for undergraduate students. RoP for graduate and doctoral students is mathematically calculated for each non-standard term (ex., 8-week, 5-week, 3-week) by the VA school certifying official, using the university's published full-time standard as the base. Students considered full-time by the university might be full-time only for part of the semester under VA standards. Example: A graduate student is enrolled in nine credit hours for the fall semester. They have one course in the 16-week term and two courses in the first 8-week term. By VA standards, this student is full-time during the first 8-week term and part-time during the second half of the semester.

Students with questions about the Rate of Pursuit calculations or other inquiries related to VA education benefits should contact the Tarleton Veteran Services Center directly for the most updated information.

Hazlewood Act

The Veteran Services Center (VSC) processes the Hazlewood Act benefit. The initial and continuation forms are available online at www.tarleton.edu/veterans. A continuation form is required for all semesters after the first semester of usage. These forms must be submitted to the VSC on or before the last day of the semester for which the benefit is being requested.

Additional information about Federal and Texas State benefits are found at www.tarleton.edu/veterans. The Veteran Services Center can be reached by phone at 254-968-1805 or by email at veterans@tarleton.edu.

Texas Workforce Commission

Vocational Rehabilitation

The Texas Rehabilitation Commission offers assistance for tuition and required fees to students who are physically or otherwise challenged, provided the vocational objective selected by the unusually challenged person has been approved by an appropriate representative of the Commission. Through this state agency, other rehabilitation services are available to assist these students in becoming employable. Application for this type of assistance should be made to the nearest Rehabilitation Office. Address inquiries to: Commissioner, Texas Rehabilitation Commission, Jefferson Bldg., 1600 W. 38th Street, Austin, Texas 78731.

Scholarship Application Deadlines

APPLICATIONS FOR SCHOLARSHIPS MUST BE FILED ON OR BEFORE FEBRUARY 15 (**EARLY CONSIDERATION - DECEMBER 1)** FOR THE FOLLOWING FALL OR ACADEMIC YEAR OR DECEMBER 1 FOR THE FOLLOWING SPRING.

The following is a list of scholarships awarded by Tarleton State University by category.

Scholarships Based on Academic Criteria

A Hand Up Endowed Scholarship
Academic Affairs General Scholarship
Academic Circle Graduate Scholarship
Lone Star Ag. Credit Agricultural Scholarship
Lone Star Beefmaster Cattlewomen Scholarship
Lone Star Beefmaster Endowment Scholarship

Ag. & Consumer Sciences Student Teacher Scholarship
Dr. Ann Albrecht Honorary Counseling Scholarship
J. Brad & Nancy Gage Allen Endowed Scholarship
Stacy and Barbara Allen Equine Scholarship
Allsup Family Endowed Scholarship
ARAMARK Food Service Scholarship
Glenda Anderson Memorial Scholarship
Ken & Litha Anderson Scholarship
Joe W. Autry Endowed Scholarship
Arrietta & Allan Babbitt & Carol & Charles McDonald Scholarship Fund
Sue Baker Memorial Scholarship
Dora Gutierrez Ballard Scholarship
Cecil Ballow Memorial Endowed Scholarship
Carroll & Leta Barham Scholarship
Balfour Beatty Endowed Scholarship
Truman T. Bell Scholarship
Birdsong Endowment Scholarship
Bosque River Water Association Endowed Scholarship
J.W. & A.E. Bright Endowed Scholarship
Phillip & Ruth Bratten Scholarship
Cindy Bicket Nursing Scholarship
Edward L. Bicket Scholarship
Bryan & Carrie Bierschwale Endowed Scholarship
Buddy Bills Family Memorial Scholarship
Blue Cross Blue Shield of Tx Healthcare Scholarship
Rickey Wilson Boles Agricultural Education Scholarship
Bouquet & Jeske Families Business Scholarship
Dr. Randall Bowden Memorial Scholarship
Dr. Randall G. Bowden Memorial Endowed Scholarship
Dr. James Boyd Memorial Endowment
The Bragg Family Scholarship in Honor of Jori Bragg
Arlie Brown Memorial Endowed Scholarship
Diane Renee Brown Memorial Scholarship
Michael Douglas Broyles Endowed Scholarship
Sue Carlson Memorial Scholarship
Campbell Family Endowed Scholarship
Sylvia Carmichael Campbell Memorial Scholarship
Arthur J. and Beatrice Robinson Carter Nursing Endowed Scholarship
Donald Cawley Social Work Endowed Scholarship
Dr. Nathan Cedars Endowed Scholarship
John S. Chapin Young Farmers Endowed Scholarship
The Chilton Family Scholarship
Carroll Lewis Clark Scholarship
Roberta Clay Journalism Scholarship
Clinical Laboratory Scholarship
COAES/Hilley Scholarship for Graduate Students
COBA Study Abroad Scholarship
COLFA Dean's Circle Scholarship
College of Agriculture and Natural Resources Ph.D. Scholarship
College of Business Administration Scholarship
College of Graduate Studies Dean's Circle COE Scholarship
College of Graduate Studies Masters/Doctoral Scholarship
Communication Gifts - Internship Scholarship
Community College Bridge Scholarship
O.C. & Allene Knox Cook Scholarship
Duncan Wills Corbett Scholarship
R.E. Dick Corley Memorial Scholarship
Bob & Zeta Wall Crews Endowed Scholarship
Cross Plains Garden Club Scholarship
Cross Timbers School Development Scholarship
Crystal Apple Society Scholarship
Joe E. Cude Endowed Scholarship
Patricia Cude CIS Endowed Scholarship
Marion Cummings Memorial Scholarship
Paul & Opal Cunyus Endowed Scholarship
Curly Tail Panther Studio Student Scholarship
Dairy Products Institute Scholarship
C.J. “Red” Davidson Endowed Scholarship
Joe R. & Teresa L. Long Scholarship
Joe R. & Dr. Teresa Lozano Long Scholarship
Jeffrey P. Longbotham Endowed Scholarship
Lyerla Family Endowed Scholarship
Grace Lyon/Dr. Pepper Endowed Scholarship
Mickey & Stella Nix Maguire Alumni Scholarship
Leon Manley Memorial End Sch
Marble Family Endowed Scholarship
Bea Marin Nursing Scholarship
Bea Marin Veterans Nursing Scholarship
Charles Ann Wylie Martin Scholarship
George Martin Memorial Endowed Scholarship
Glynda McMillin Martin Endowed Scholarship
Stacey & Robert Martin Scholarship
Math Club Scholarship
Mayfield Scholars
Mayfield - Dooley Scholarship
Lynda K. and A. Dwain Mayfield Endowed Scholarship in Engineering
Dennis & Mary Lou McCabe Presidential Endowed Scholarship
Cooper McCarty Memorial Scholarship
Ruth Scrimshire McCleskey Endowed Scholarship
LTC J.D. McCullough Memorial Scholarship
Jay R. McDanel Education Scholarship
Sue McGinity Scholarship
Dr. Barbara R. McGregor Scholarship Endowment
Sam R. McInnis Scholarship
Barbara Jean McKeage Endowed Nursing Scholarship
Dan B. McMillin Endowed Scholarship
Joel Meador Family Endowed Scholarship
A.B. Medlen Endowment
Louis and Josie Belle Merrill Endowed Scholarship
Midlothian Outreach Campus Endowed Scholarship
Terry & Patti Miller Scholarship
Mogonye Family Scholarship Endowment
Kathleen Montgomery Memorial Nursing Scholarship Endowment
John Mitchell Moore Endowed Scholarship in Nursing
Mary Frances Morgan Education Scholarship
Gene Morrison Legacy Endowed Scholarship
MSAT Education Endowment Fund
Howard Nance Chemical Society Scholarship
Nelson Family Master of Science with a Botany Emphasis Scholarship
Nepalese Student Society Scholarship
Robert W. Newby Scholarship in Psychology
Lewis and Ina Newton Memorial Scholarship
Harold D. Nix Memorial Scholarship
Gregory Nowlin Scholarship Fund
Gregory Nowlin Scholarship - Dallas ISD
Gregory Nowlin Scholarship - Ft. Worth ISD
Gaylene E. & James T. Nunn Jr. Endowed Scholarship
Paul Pair Endowed Scholarship
Joe Parish Endowed Scholarship
Loy Patton Endowed Nursing Scholarship
John D. & Alene Moorman Palmer Endowed Scholarship
Outreach Campus Scholarship
Dr. Sam and Carol Pack Endowed Scholarship
Douglas B. Pair Pre-Pharmacy Scholarship
Paul and Courtney Paschall Endowed Scholarship
Donald T. Pendleton Endowment Scholarship
Donald T. & Bettejoe R. Pendleton Scholarship Endowment Fund
Dorris & Grady Perry Memorial Scholarship
Ann Bulecza Petronis Nursing Scholarship
Janis & Richard Petronis Endowed Scholarship
Pevehouse Range Management Scholarship
Meghan Keely Pharr Scholarship
John & Faye Phears Memorial Scholarship Endowment
Phi Alpha Theta Endowed Scholarship
Phi Theta Kappa Scholarship
Carl Phillips Memorial Scholarship

Dawson-Blanchard Industrial Education & Technology Scholarship

Uta Davis Endowed Scholarship
Davidson Presidential Academic Scholarship
J. Thomas Davis Endowment
Deans' Academic Scholarship
Deans' Engineering Excellence Award
Dr. Ken & Virginia Dorris Memorial Endowed Scholarship
Edwin & Welba C. Dorsey Academic Scholarship
Bob Doty Animal Science Scholarship
Linda Duncan Honorary Counseling Endowed Scholarship
Betty Knudson Edgar Memorial Endowment Scholarship
Patricia Egdorf Nursing Scholarship
Lucy Ellis Endowed Scholarship
Zeddie & Ruby Edgar Memorial Scholarship
Bob & Peg Elliott Memorial Award
Encouraging Graduate Academic Progress Scholarship
Engineering Scholarship
Engineering Technology Founders Scholarship
English & Languages Endowed Scholarship
Faculty Endowed Scholarship for Business Graduate Students
Faculty Endowed Scholarship for Business Students
Minnie Fagan Endowed Scholarship in Elementary Education
Robert & Patricia Fain Teaching Scholarship
Alex & Ruby Fambro Scholarship in Agriculture & Rodeo
John & Lillie May Farley Endowed Scholarship in Arts & Sciences
Frances W. Fenner Memorial Scholarship
Winnie McAnelly Fiedler Memorial Scholarship
First National Bank of Granbury Scholarship
First-Time Graduate Student Scholarship
Sharon Fitzpatrick Mathematics Endowed Scholarship
C.M. "Dutch" Flory Memorial Scholarship in Physical Education
Mary Fletcher Endowment
Audie & Zera Floyd Educational Trust Scholarship
Follett Bookstore Scholarship
Mary Anne Foreman Memorial Scholarship
Fort Worth Police Department Scholarship

Flora Foust Graduate Scholarship
James Mack Foust Endowed Scholarship
Harold & Betty Freeman Scholarship
Freshman Sprint Scholarship
Dr. H. Bedford & Dr. Oneta Furr Scholarship
Carl & Shiryn Gabbard Scholarship Endowment
John Garner Memorial Mathematics Scholarship
Emma Mae & Evelyn Andrews Garrett Endowed Scholarship in Human Sciences
Bailey Gasch Scholarship
General Studies Upward Bound Endowed Scholarship
Robert & Deanna Glasgow Scholarship Endowment
Goodlett-Hensarling Endowed Scholarship
Mr. & Mrs. W.K. Gordon, Jr. Endowed Scholarship
Gough Wealth Management Scholarship in the Dr. Sam Pack College of Business
Graduate Fine Arts Scholarship
Jerry W. & Jean Graham Endowed Scholarship
O.A. Grant Scholarship in History/Government
T.C. & Jill Granberry Alumni Scholarship
Granbury Wine Walk Scholarship
Greater Texas Foundation Freshman Immersion in Teaching Scholarship
Greek Academic Leadership Excellence Scholarship
Ouita Griffin Memorial Scholarship
Dr. Christopher Guthrie History Scholarship
W.A. Hail Memorial Scholarship
Charles H. Hale Memorial Endowed Scholarship
Sallie Hale Teacher Preparation Scholarship
Bob Hallmark Graduate Scholarship
Hanna 4 Hope Foundation Scholarship

Alison Pickering Memorial Scholarship - College of Agriculture and Natural Resources
Alison Pickering Memorial Scholarship - Delta Phi Epsilon Sorority
Alison Pickering Memorial Scholarship Endowment
Pino Family MCAT Scholarship
Randall Popken Endowed Scholarship
Presidential Academic Scholarship
President's 1st Generation Student Success Scholarship
President's Circle Scholarship
President's Guaranteed Scholarship Program
President's Guaranteed Scholarship Program - Master's Degree
President's Guaranteed Transfer Scholarship Program
President's Texan Scholarship
Marshall "Digger" Procter Scholarship
Provost's Honors Scholarship
Ranly/Moran Family Agriculture Scholarship
Derwayne & Barbara Rasco Scholarship
REAL Scholarship
William E. and Linda J. Reaves Endowed Scholarship
Lyle & Josephine Reisman Scholarship Endowment
Richards Family Endowed Scholarship
Dr. Rick & Melanie Richardson Endowed Scholarship
Jesse Lee & Armour McCluer Richardson Endowed Scholarship
Swan & Gaynelle Richardson Endowed Scholarship
Rio Brazos Exhibition Scholarship Award
Rick Roach Memorial Scholarship
Emily Evans Roberson Scholarship
Honest John Rogers Scholarship
Roy D. Russell Family Agricultural Education Scholarship
Jim and Judy Sale Nursing Scholarship
San Antonio Livestock Show & Rodeo Endowed Scholarship
San Jose Jewelers TAA Scholarship
Richard Saunders Scholarship
Richard C. Schaffer Clinical Lab Sciences Scholarship
Jessica Shaver Schneider Endowed Scholarship
Schoonmaker Family Legacy Scholarship
Anthony Sylvester Setera and Beverly Setera Endowed Scholarship in Engineering
Charlotte Han Sharp Scholarship
William Henry & Jessy Mays Sheffield Scholarship
Alan Douglas Shores Memorial Scholarship
SHS Class of '65 Scholarship
Jack Sommerfield Memorial Scholarship
Jacey Smathers Memorial Endowed Scholarship
Dick Smith Scholarship in Arts & Sciences
Doug Smith Endowed Scholarship
McKee Jane Smith Endowed Memorial Scholarship
Patty Smith Memorial Endowed Scholarship
Russell Alan Smith Electrical Engineering Scholarship
L. Dwayne & Connie Snider Scholarship
The Springfield Family Scholarship in Criminal Justice
SSC Engineering and Engineering Technology Scholarship
Staff Council Scholarship
Jackie W. & Bill E. Stallworth '51 International Business Excellence Scholarship
Dr. Leslie Stanley-Stevens and Dr. William H. Stanley, Sr. Endowed Scholarship
David & Debbie Stanphill Scholarship Stark Scholarship
STEDCO Engineering Scholarship Endowment
Dr. Steve Steed College of Business Scholarship
Stephenville Optimist Club Robert C. Fain Honorary Scholarship
Leon B. Stinson Endowed Scholarship
Student Research Symposium Scholarship
Gregory Scott Sultemeier Criminal Justice Memorial Scholarship
Scott Summy Pre-Law Endowed Scholarship
Stan and Vickie Swam Scholarship
Dr. Jesse L. Tackett Endowed Scholarship
Tarleton Academic Scholarship

Sara Hanson Scholarship for Parents Returning to Finish Their Degrees Scholarship
Rocky & Tracey Hardin Endowed Scholarship
Rocky and Tracey Hardin Scholarship
Rachel Harrist Memorial Scholarship
H.H. Hassler Memorial Equine Scholarship
Perry Henderson Construction Management Scholarship
Willene Lowery Hendrick Nursing Scholarship
Dr. Christopher Hepburn Music History Scholarship
Lonnie & Clara Herring Scholarship
John Fielding Higgs Memorial Scholarship
High-Performance Computing Graduate Research Fellowship in Mathematics
COAES Deans' Development Fund Hilley Scholarship
Mandy Holmes Memorial Endowed Scholarship
Hohenberger Ag. Economics Scholarship
Henry Hohenberger Endowment - Ag. Mechanics Teaching Scholarship
Hohenberger Family Endowed Scholarship
Ida Lou Nelson Holmes Scholarship in Human Sciences
Honors College Alumni Scholarship
Honors College Study Abroad Scholarship
Honors Degree Program Scholarship
Eloise Horak Scholarship
Horak-Smith Middle School Mathematics Endowed Scholarship
Houston Livestock Show & Rodeo Agricultural Scholarship
E.J. Howell Memorial Scholarship
Bret Hull Memorial Scholarship Endowment
International Studies Internship Scholarship
Dr. Kam & Joanne Ip Health Sciences Endowed Scholarship
Sylvia Herrera Jankord First-Generation Elementary Education Scholarship
Herbert Jarrett Social Work Scholarship
Danny Jenkins Memorial Scholarship
Pauline “Polly” Jenkins Memorial Scholarship
Evelyn Floyd & Leslie (Al) Jennings Scholarship
Lamar & Marilynn T. Johanson Biological Sciences Scholarship Endowment
Lamar & Maryilynn T. Johanson Scholarship Endowment
John Tarleton Ranching Heritage Endowed Sch
Johnson County Master Gardener Association Scholarship
Johnny Johnson Memorial Scholarship
Betty & Paul Jones Memorial Scholarship Endowment
Mae Jones Endowed Scholarship
Kristi and Mickey Kennedy First Generation Scholarship Endowment
Bettye & Gary Key Endowed Scholarship
C. Richard King Scholarship
Shelby Ehrhardt Koehler Endowment Scholarship
Harva Kuykendall Endowed Scholarship
J.V. & Lillie Ruth Laird Scholarship
Lambda Chi Alpha Mark Kilroy Memorial Endowed Scholarship
Jakie Laughlin Endowed Scholarship
Barbara Lancaster Scholarship
Myrtice N. Larson Education Sch
Luke E. Lawson Ph.D. Memorial Scholarship
James C. Leeth Memorial Scholarship
Col. Charles Leigon Endowed Scholarship in Nursing
Russell & Sharon Leigon Social Work Scholarship
Carolyn Lesley Memorial Scholarship
Garry Lewellen Memorial Scholarship
Lewis Charles Link Endowed Scholarship
Tarleton Alumni Association Endowment Scholarship
Tarleton General Scholarship
R.L. & Mattie Tate Memorial Endowed Scholarship
Joy Terry Endowed Scholarship in Chemistry
Lee Edwin Terry Endowment
Texas Pioneer Foundation Scholarship
Texas Seed Trade Association/American Seed Trade Association Scholarship
I. B. Thomas Hydrology Scholarship
Dr. Barry B. Thompson Theatre Scholarship
Top Academic Partners Scholarship
Bernie Amos and Lorraine Yarbrough Trice Memorial Endowed Scholarship
W.O. Trogdon Endowment
Vance & Violet Terrell Scholarship in Nursing
Tarleton Alumni Association Baylor Nursing Scholarship
Tarleton Alumni Association Endowed Scholarship
Tarleton Career Enrichment Scholarship
Tarleton Discovery Scholarship
Tarleton High Performance Computing Scholarship
Tarleton Impact Scholarship
Tarleton Seed Scholarship
Tarleton State University Distinguished Alumni Chapter Scholarship Endowment
Tarrant County College Math Competition Scholarship
Willie L. & Eve K. Tate Scholarship
Jewell Taylor Dietetics Scholarship
Texas Association of County Engineers and Road Administrators (TACERA) Endowed Scholarship
Texas Ranger Law Enforcement Association Criminal Justice Scholarship
Texas Seed Trade Association Scholarship
The First National Bank of Evant Scholarship Endowment
Barry B. Thompson Science Education Endowed Scholarship
Town & Country Bank Dublin High School Scholarship
Barbara Townsend Education Scholarship
Transfer Sprint Scholarship
TSU Foundation Engineering Scholarship
TSU Student Nurses’ Association Senior Scholarship
TSU Student Nurses’ Association Sophomore Scholarship
Trenzio D. Turner Scholarship
Twentieth Century Club Scholarship
Dr. Sara Tyler Memorial Scholarship
Ultra Fine Arts Scholarship
Volleman's Family Scholarship
Waco Outreach Campus Endowed Scholarship
Dr. Gay Wakefield Memorial Scholarship
Robert B. Waller Endowed Graduate Scholarship
Gilbert Ward Memorial Hydrology Scholarship
Washington D.C. Internship Scholarship
Coy L. Watson Class of 1939 Scholarship
SGT Steven Watts Legacy Scholarship
Dr. David Weissenburger Scholarship
Christy West Scholarship Fund for Teachers
Lucile W. Whisenand Memorial Endowed Scholarship
Hosey-Whitman Scholarship
George Wiedebusch Scholarship
Evelyn Wisdom Memorial Endowed Scholarship
Wyatt Family Scholarship
Zunker Family Scholarship

Presidential Honors Program

Joy Gallant Archer Scholarship
Edward Larry Bicket Presidential Honors Scholarship
Andrea Bernice Brenner-McMullen Presidential Honors Scholarship
Daniel Ross Carpenter Presidential Honors Scholarship
Frederick Thomas & Madeline Tolksdorf Crimmins Criminal Justice Presidential Honors
Crimmins Criminal Justice Presidential Honors Scholarship
Helen Crimmins and Aurelia Tolksdorf Presidential Honors Scholarship
W.L. (Bill) & Barbara Terrell Nix Honors Program Study Abroad Endowed Scholarship
Robert & Ireta Pittman Endowed Scholarship
Howard F. & Willie Dee Ross Memorial Endowed Scholarship
Louise & Tommy Thompson Presidential Honors Scholarship
Nita Todd Presidential Honors Scholarship
Henry Todd Presidential Honors Scholarship
Dr. James Clark Terrell Presidential Honors Scholarship

Herman Funston Honorary Endowed Scholarship for Presidential Honors Scholars
Guin Lemke Presidential Honors Scholarship
Roy & Mildred McKnight Endowed Scholarship
Audrey Myers Memorial Scholarship for Presidential Honors Scholars
M.D. McElroy Presidential Honors Scholarship
Will & Pearl Nix Presidential Honors Scholarship
Dora L. Willard & Ellen W. Willard Terrell Presidential Honors Scholarship
J.L. Todd Presidential Honors Scholarship
Town & Country Bank Presidential Honors Scholarship
Clyde H. Wells Presidential Honors Scholarship
Royce Wisenbaker Presidential Honors Scholarship

Scholarships Based on Leadership & Other Criteria

Major General Chris Adams Air Force ROTC Scholarship
Agriculture Career Development Endowed Scholarship
Agriculture Contest Scholarship
Agricultural Services & Development Alumni Scholarship
Agricultural Special Need Scholarship
Allen Cattle Management Scholarship
Alpha Gamma Delta Epsilon Upsilon Alumnae Endowed Scholarship
Alpha Phi Omega Alumni Scholarship
Ben and Nellie Baty Endowed Scholarship
Ashley Beasley Memorial Scholarship
Gary Wayne Brannon Scholarship
Brown Foundation
W.P. & Lucille Brummett Endowed Scholarship
Major J.W. Burkett Memorial Scholarship
Chris Cain Memorial Plowboy Scholarship Endowment
John Caraway Memorial Endowed Nursing Scholarship
Childers Family Criminal Justice Leadership Excellence Scholarship
Mark G. and Katherine L. Childers CJ Leadership Endowed Scholarship
Class of 2014 Agribusiness Scholarship
Major William Clay, Jr. Memorial Scholarship
COAHS Scholarship
COBA Select Sires, Inc. Agricultural Scholarship
Comanche County Scholarship
Dr. Samuel E. Curl Endowed Scholarship
Delta Zeta Dean Alice Matthews-Craig Scholarship
DeLeon, Texas Ex-students Association Scholarship
William Edwin Dyess Endowed Scholarship
June Frank Eldridge Memorial Scholarship
Erath County Association of Retired School Employees Scholarship
First National Bank of Granbury Texan Corps of Cadets Scholarship
Bobby Fox Memorial Endowment
Oscar Frazier Endowment
Jerry Flemmons Memorial Endowed Scholarship
Friends of the Dick Smith Library Endowed Scholarship
Tony and Gina Gaither Memorial Endowed Scholarship
Gifford Family Veterans Endowed Scholarship
Golden Family Scholarship
Harris Methodist Hospital-Erath County Endowed Scholarship In Sports Medicine
Gene Haas Scholarship
Mr. & Mrs. Donald L. Haile Family Scholarship Endowment
Ben Hogan Scholarship
LTC Joel P. Humphries Devious Minds Scholarship
LTC Joel P. Humphries Lead Purple Scholarship
Brian K. Iley Memorial Scholarship
LTC Sam Jeffers ROTC Scholarship
John Tarleton Leadership Academy (JTLA) Scholarship
Daniel Jones Delta Chi Memorial Endowed Scholarship
Larry Janca Kahlbau Endowed Scholarship
LTC John F. Kerby Army ROTC Endowed Scholarship
Ed Knoll Service Scholarship
John & Judy Landers Scholarship
Judy & John Landers Scholarship
Mike and Sena Leese Leadership Scholarship
Col. Charles Leigon Texan Corps of Cadets Scholarship
LietzServe Scholarship
Dalton Reese Lopez Memorial Plowboy Scholarship
Marilyn & John Henry Luton Corps of Cadets Endowed Scholarship
Roscoe & Halcie Maker Endowed Scholarship
Judge & Mrs. Almon Maus Scholarship
Dr. Dennis P. McCabe Student Endowment Scholarship
Curtis L. Meeks Upward Bound Scholarship
Mills County Scholarship
Lt. Col. Jim and Dr. Theresa Mulloy Texan Corps of Cadets Scholarship
MVSC Veterans Assistance Scholarship
W.L. & Barbara Nix Erath County Scholarship
John & Rita Pelham Texan Corps of Cadets/ROTC Scholarship
Christian & Nancy Phillips Leadership Scholarship
Pineapple Games Scholarship Endowment
Otho & Ellen Phillips Endowed Scholarship
Presidential Leadership Scholarship
Recreational Sports Memorial Scholarship
Rennie & Hugley Memorial Scholarship in Nursing
Residential Living/Learning Leader Scholarship
Jamie Renee Richards-Hogland Memorial Scholarship Endowment
Ruby Nell Ruth Endowed Scholarship
Jacob Sandlin Memorial Scholarship
Dr. Verne & Pearl Kern Scott Endowed Scholarship
SGA Service Scholarship
SHS Class of 1961 Endowed Scholarship
SHS/Tarleton Academic Reciprocal Scholars
Southwest Meat Assn. Foundation Scholarship
Brett Spindor Memorial Endowed Scholarship
June Arthur Shannon Scholarship
Doug Smith Endowed Scholarship
STEM Student Ambassador Scholarship
Student Life Circle - Oscar P Scholarship
Deanna Supercinski & Janna Walker Memorial Scholarship
TAA Edwin Dyess Veteran Memorial Scholarship
TAA Legacy Scholarship
Tanton Family Granbury High School Scholarship
Tanton Family Dublin High School Scholarship
Tarleton Ambassador Core Values Scholarship
John Tarleton Leadership Academy Scholarship
Tarleton Parents Association Scholarship
Tarleton Professional Educators Scholarship
Tarleton State University SGA Zach Shaver Memorial Endowed Scholarship
Tarleton Student Government Association Scholarship Quasi-Endowment
Texan Corps of Cadets Scholarship
TEXAN Corps of Cadets Leadership Scholarship
Texan Reps Scholarship
Texan Sports Medicine Association Endowment and Scholarship Fund
TSU Foundation, Inc. Endowed Scholarship
TSU Meats Team Endowment
Waco Diplomat 'Imbued with Spirit' Endowed Scholarship
Wichita Farm & Ranch Club Scholarship
W.J. Wisdom Endowment
Zonta Club Loy Patton Scholarship

Scholarships Based on Need & Other Criteria

Dextor & Leroy Ator Endowed Scholarship
Joy Gallant Archer Memorial Endowed Scholarship
Sue Baker Scholarship
Bobby Mabery Memorial Scholarship Endowment
Russell Moore Endowed Scholarship
Clifton J. Morvant Endowed Scholarship

Paul D. & Gerry B. Bearden Endowed Scholarship
Robin L. and AliceAnne Brown Scholarship
Dwain & Carolyn Bruner Endowed Scholarship
Drs. Stan & Linda Carpenter 1st Generation STEM Scholarship Endowment
Clinton Smith, Clint Stewart and John Christie Memorial Endowed Scholarship
Class of 1948 Endowed Scholarship
Ryan Clayton Memorial Scholarship
Richard & Suzy Coan Endowed Scholarship
Rex Detamore Scholarship
Josephine Garrett Donaldson Scholarship
Doss Foundation Scholarship
M. S. & Meek Lane Doss Scholarship
Dan & Geneva Fender Family Scholarship
Evans Family Scholarship
Florence Peek Foust Scholarship
Drucilla Eberhart George Memorial Endowed Scholarship
Walter and Sara George Scholarship
Truby Glasscock Endowed Scholarship
Eleanor Golding Memorial Scholarship
Cameron Gomez Scholarship
Cora Rohne Goodman & Kings' Daughters Nursing Alumnae Association Memorial Scholarship
Willis-Gordon Endowed Scholarship
E.R. & Sammye Henningsen Scholarship
Gladys Hale Endowed Scholarship
David & Danielle Hanson Scholarship for Twins
Dr. Gloria M. Hewlett Endowed Scholarship
David Hooks Memorial Scholarship
Dr. James & Kindall Hurley Endowed Scholarship
Daniel Jones "Never Give Up" Memorial Scholarship
Reecie & Opal Jones Endowed Scholarship
Ava & Jack Kenny Endowed Scholarship
Lee Law Firm Scholarship
Ethal Lewallen Memorial Scholarship
Kendra Lewis Memorial Scholarship Endowment
Mary Garrett Lindley Memorial Scholarship
Ray & Pat Peters Endowed Scholarship
Virginia Powell Scholarship
Francine Esposito Pratt Social Work Endowed Scholarship
Presidential Need-Based Scholarship
James Winston Randle Endowed Scholarship
Shanon Rasco Scholarship for Physically Disabled Students
Regents' Trailblazer Grant/Scholarship
Removing Educational Barriers Endowed Scholarship
Annie Myra Schuman Nursing Scholarship
Dr. Verne A. Scott Scholarship
Second Chance Scholarship
Ram Lal Seekri Endowed Scholarship
Richard T. Shigley Memorial Scholarship
Spirit of Tarleton Scholarship
Stephenville Hospital Auxiliary Inc. Nursing Scholarship
Stephenville Study Club Endowed Scholarship
SunGard Generation Proud Scholarship
T3 Last Dollar Scholarship
James H. & Betty Tally Endowed Scholarship
Tarleton Flame Scholarship
Tarleton Pride Scholarship
Dean & Gloria Taylor/Kwik Kar Scholarship
George Taylor and Bonnie Lou Irvin Endowed Scholarship
Texan GRIT Re-Entry Scholarship
Texas Association of Ag. Consultants Endowed Scholarship
Richard L. Thompson Endowed Scholarship
Thormann Endowed Scholarship
Dimple Obedia Tunnell Endowed Scholarship
Roger & Ruth Turney Memorial Scholarship
Stanley G. and Mary Ann Westbrook Endowed Scholarship
Lee Wayne Wheeler Scholarship
TAA Don Winn Scholarship
Kathleen Wisdom Endowed Scholarship
Hal W. & Winnie F. Wright Endowed Scholarship
Juanita Dixon Zonta Single Parent Scholarship

Performance-Based Scholarships

Ryan Anthony Memorial Trumpet Scholarship
Athletic Performance Intern Scholarship
Band Scholarship
Bass Club Scholarship
Kacee Bradley Top Hand Rodeo Scholarship
Bryan Bray Memorial Scholarship
Busby Quarter Horse Scholarship
John Caraway Memorial Endowed Music Scholarship
Dr. Marie Meisel Cedars Memorial Scholarship
Center Stage Scholarship
Cheerleader Scholarship
Choir Scholarship
Caden Coltharp Memorial Scholarship
Marily Considine Memorial Endowed Scholarship
Rachel Lorraine DeLeon Memorial Scholarship Endowment
Bob & Darla Doty Endowed Scholarship
Drama Scholarship
Perry & Meldeene Elliott Endowed Athletic Scholarship
eSports Scholarship
Kenneth Evatt Rodeo Scholarship
Joe Fambro Memorial Endowed Scholarship
Jerry Flemmons Drama
Mike Myers & Oscar Frazier Track/Field Scholarship
Charles & Lucille Froh
John Franks Memorial Endowed Scholarship
Morris & Beverly Gifford Scholarship
Coach Ronnie Giles Memorial Scholarship
Lauren Green Memorial Scholarship
Daniel Parker Herd Memorial Endowed Scholarship
Horak Family Scholarship Endowment
Kreek Magin Memorial Scholarship
Pearl Mahan Writing Scholarship
Stacey & Robert Martin Endowed Scholarship for Fine Arts
Coach Hal McAfee Memorial Scholarship
Kevan Meador Memorial Scholarship
Sue Medlen Music Scholarship
Mary Jane Mingus Endowed Scholarship
Donald W. Morton Music Scholarship Music
Col. David F. Montgomery Memorial Rodeo Scholarship Endowment
Donald & Dahlee Morton Endowed Piano Scholarship
Piano Performance Scholarship
Terry and Alyce Price Choral Scholarship
Presidential Rodeo Scholarship
Rec Sports - Bass Tournament Scholarship
Swan & Ertith Richardson Endowment
David C. Riggins Memorial Scholarship
Scott Riola Memorial Endowed Scholarship
Walter Rode Endowed Scholarship
Rodeo Activity Scholarship
Rodeo Stall Scholarship
ROTC Scholarship
Earl Rudder Endowed Scholarship
Cheryl Spellmeier Endowed Scholarship
Gary & Judy Spindor Scholarship
Student Services Rodeo Scholarship
TAA Meat Judging Chapter Legacy Scholarship
Rick Tackett Memorial Scholarship
Herb Teat Endowment
Texan Stars Scholarship
Town & Country Bank Rodeo Scholarship

Hunewell Band Scholarship
International Piano Major Scholarship
Daniel Jones "Bleed Purple" Memorial Endowed Scholarship
Judy and Gary Jones Memorial Scholarship
M. Don Jones Memorial Football Scholarship
Marguerite Landress Memorial Endowed Scholarship in Music
Ethel Lewallen Fine Arts
Ethel Lewallen Memorial Scholarship
Littleton Volleyball Scholarship
A Diamond in Our Eyes: The Sade Lowery Memorial Scholarship
TSU Rodeo Association Scholarship
Visual Art Scholarship
Terry Walls Memorial Scholarship
Clyde H. Wells Fine Arts Scholarship
Jana Williamson Memorial Endowed Scholarship
C.A. Wisdom Music Endowment
Col. Ray & Pat Yantis ROTC Endowed Scholarship
Marty Yates Rodeo Scholarship
Zonta Beaulah Brown Rodeo Scholarship

Tarleton State University also awards NCAA Division II Athletic Scholarships to male and female student athletes.

Tarleton Libraries

Dr. Katherine Quinnell
Dean of Libraries
Library Administration
254-968-9246
quinnell@tarleton.edu

Tarleton Libraries offer information and research materials, personalized services, technological tools, and study/meeting spaces to support the educational, research, scholarship, and recreational needs of the entire University community. The libraries' resources and services can be accessed online at http://www.tarleton.edu/library (http://www.tarleton.edu/library/) and by visiting the libraries.

The Dick Smith Library is centrally located on the Stephenville campus and offers all the typical amenities of an academic library including the Study Grounds Café, which serves food and beverages. With the swipe of your university ID, a 24-hour zone is available after the services of the library closes. The Rickett Library in Fort Worth has a physical collection targeted to graduate degree offerings and utilizes the campus courier to provide access to Dick Smith Library materials. Writing Center and Information Technology Services can be found in both libraries.

Tarleton librarians and professional staff offer services and resources in person, via chat, by telephone, through email, and online appointments to meet Tarleton community's ever-changing needs. Tarleton Libraries provide print and electronic books (850,000+), periodicals (153,000+), government documents, audiovisual materials, microforms, archives, and digital images. Tarleton Libraries offer over 400 databases that provide online access to full-text articles and citations from thousands of scholarly and professional journals, trade publications, popular magazines, newspapers, and selected reference books, as well as streaming video and digital music to support coursework and research endeavors. Interlibrary loan and TexShare are two other services to access resources we do not own.

Tarleton State Fort Worth

Tarleton State Fort Worth
10850 Texan Rider Drive
Fort Worth, TX 76036
(817) 732-7300
fortworth@tarleton.edu
www.tarleton.edu/fortworth/index.html (http://www.tarleton.edu/fortworth/)

Tarleton State University Fort Worth (Tarleton State Fort Worth) has operated programs serving the needs of Tarrant, Johnson and Parker Counties for nearly 50 years. Initial programs started in 1978 in the area of Medical Laboratory Sciences, providing critically needed health care professionals for the rapidly growing region. Those programs were followed by cooperative programs with the Fort Worth ISD to offer teacher certification programs to meet the growing demands for teachers in Texas and the nation. Since that time, Tarleton State has expanded program offerings at this location to include a variety of options from the Dr. Sam Pack College of Business, College of Education, Division of Health Sciences, College of Liberal and Fine Arts, College of Science and Mathematics, and the Mayfield College of Engineering. Programs include all levels of study with bachelor's, master's and doctoral degrees.

Students enrolling at Tarleton State Fort Worth may choose courses and entire programs offered via a variety of delivery modes including face-to-face, hybrid, or online. Consult the individual program listings for the type of delivery options available for each program offered.

Tarleton State Fort Worth has a varied student population comprised of returning and first-year in college students, community college graduates, and working adults. Classes are offered during the day, evenings, and weekends to accommodate both part-time and full-time students. Academic advisors and other support staff are available to assist with admissions, financial aid/scholarship, veteran services, student success supports (tutoring, proctored testing, etc.), degree plans, and library resources.

Over 60 academic degree programs and certification options are available through Tarleton State Fort Worth. A complete listing of of opportunities can be found on the Tarleton State Website (https://programs.tarleton.edu/?_sfm__degree_campuses=Fort%20Worth).

Thanks to the donation of 80 acres by the Walton Development Group in 2014, the 76,000 square foot Campus Administration Building (CAB) opened in fall 2019 on the Chisholm Trail Parkway. Additionally, the Interprofessional Education (IPE) Building at 102,000 square feet opened in fall 2024 and Texas A&M-Fort Worth in fall 2026 to provide Tarleton State with outstanding facilities to meet student needs.

Admission applicants to one of the Fort Worth undergraduate programs for first time college students must meet the first year in college admission standards for Tarleton State University: https://www.tarleton.edu/admissions/. (https://www.tarleton.edu/admissions/)

Additional information about any of these programs or teaching locations may be obtained by contacting:

Tarleton State Fort Worth
10850 Texan Rider Drive
Fort Worth, TX 76036
(817) 732-7300
fortworth@tarleton.edu
www.tarleton.edu/fortworth/index.html (http://www.tarleton.edu/fortworth/)

Tarleton State RELLIS

Texas A&M - RELLIS
Tarleton State University
3100 TX-47
Bryan , TX 77807
(254) 299-8322

Waco/Bryan Administrative Offices
Tarleton State University
McLennan Community College - Michaelis Academic Center, Room 101
1400 College Drive
Waco, TX 76708
(254) 299-8322
rellis@tarleton.edu

Tarleton State University proudly offers baccalaureate degree completion programs as part of the newest model of higher education in Texas, the Texas A&M System's RELLIS Academic Alliance in Bryan, Texas. The RELLIS Academic Alliance buildings are located off Texas Highway 47 and Texas Highway 21.

The RELLIS Academic Alliance allows multiple institutions within the Texas A&M System and the Blinn College District to collaboratively offer select degree and certificate programs. Students have the opportunity to be a part of a unique environment that challenges them to innovate, explore, and push themselves further than they ever have before and receive an exceptional educational experience that will positively impact their respective careers.

Tarleton State's College of Education, Division of Health Sciences, College of Liberal and Fine Arts**,** and the Mayfield College of Engineering are committed to providing outstanding educational opportunities for students and working professionals in the Brazos Valley area.

Approved degree completion program offerings at Texas A&M-RELLIS include nine Bachelor of Science (BS) degrees in Criminal Justice, Civil Engineering, Elementary Teacher Education, General Studies, Kinesiology – Exercise & Sports Studies Concentration, Mechanical Engineering, Mechanical Engineering Technology, Sport Management, and a Bachelor of Social Work (BSW). The two Bachelor of Applied Arts and Science (BAAS) degrees offered at Texas A&M-RELLIS include Criminal Justice Administration and Kinesiology – Exercise & Sports Studies Concentration.

Standout features of Tarleton State's program offerings at RELLIS include small class sizes, exceptional faculty, and majors in high-demand professions.

Admission to one of Tarleton State's Texas A&M-RELLIS undergraduate programs requires dual admission to Blinn College or completion of a minimum of 12 transferable credits with a 2.25 GPA and be Texas Success Initiative (TSI) complete. Applicants to an undergraduate program must meet the admission standards for Tarleton State University: https://www.tarleton.edu/admissions/. (https://www.tarleton.edu/admissions/)

Information about Tarleton State's offerings at Texas A&M-RELLIS can be found: https://www.tarleton.edu/rellis/future-students/

Or visit/contact:

Texas A&M-RELLIS
3100 TX-47 Bryan, TX 77807

Tarleton State Waco/Bryan Administrative Offices
McLennan Community College – Michaelis Academic Center, Suite 101
1400 College Drive, Waco, TX 76708
(254) 299-8322

Tarleton State Waco

Tarleton State University - Waco Administrative Offices
Tarleton State University
McLennan Community College
Michaelis Academic Center - Room 101
Waco, TX 76708
(254) 299-8322
www.tarleton.edu/waco/index.html (http://www.tarleton.edu/waco/)

Tarleton State University Waco (Tarleton State Waco) delivers programs serving the needs of McLennan and Hill Counties as a four-year partner of the McLennan Community College (MCC) University Center (UC). McLennan and Hill County represent a rapidly growing population not served by a four-year public institution prior. In response to a major identified community need for baccalaureate and master's-level degree programs, MCC established a UC to host four-year institutional partners in offering these degree programs on the campus, with Tarleton State as one of the inaugural partners more than 20 years ago.

Since 2002, Tarleton State has expanded program offerings in Waco to include a variety of academic options from the Dr. Sam Pack College of Business, College of Education, Division of Health Sciences, College of Liberal and Fine Arts and the Mayfield College of Engineering. Programs include junior/senior level courses for baccalaureate degree completion as well as master's level course work. The baccalaureate degree completion programs are designed to build upon associate degree pathways offered by two-year partners such as MCC, Hill College, and Texas State Technical College.

Students at Tarleton State Waco may choose courses and academic programs offered via a variety of delivery modes including face-to-face, blended/hybrid, or online. Consult the program listing for the type of delivery modes available for each.

Tarleton State Waco has a varied student population comprised of working adults seeking graduate degrees and community college graduates/returning students seeking to complete their degree. Classes are offered in the day and evenings to accommodate both part-time and full-time students. Advisors and support staff are available to assist with admission, financial aid/scholarship, veteran services, student success services, and degree plans.

More than 30 academic degree programs and certificates are available through Tarleton State Waco. A complete listing of opportunities can be found on the Tarleton State Website (https://programs.tarleton.edu/?_sfm__degree_campuses=Waco).

Admission to one of the Tarleton State Waco undergraduate programs requires completion of a minimum 12 transferable credits with a 2.25 GPA and be Texas Success Initiative (TSI) complete. Applicants to an undergraduate program must meet the transfer admission standards for Tarleton State University: https://www.tarleton.edu/admissions/. (https://www.tarleton.edu/admissions/)

Further information about any of these programs may be obtained by visiting or contacting:

Tarleton State Waco Administrative Offices
McLennan Community College – Michaelis Academic Center, Suite 101
1400 College Drive, Waco, TX 76708
(254) 299-8322
waco@tarleton.edu
https://www.tarleton.edu/waco/

Tarleton State Online

Tarleton State Online
Tarleton State University
10850 Texan Rider Drive
Fort Worth, Texas United States 76036
online@tarleton.edu

Tarleton State Online empowers students with the flexibility to pursue their education on their own terms, leveraging their location and schedule. With over two decades of experience, Tarleton State has been a pioneer in online education, developing one of the nation's first online graduate degrees in Agriculture in 2003.

Tarleton State Online offers:

- **Hybrid** bachelor's degree completion programs
- **100% online** bachelor's and master's degrees
- **100% online** synchronous doctoral program in Educational Leadership

Information about programs may be obtained by visiting https://www.tarleton.edu/online/.

Dedicated support for Tarleton State Online students includes admissions, financial aid/scholarships, veteran services, degree plans, class recommendations, career services, and other student success services (tutoring, proctored testing, etc.). To find out more, please visit: https://www.tarleton.edu/online/texan-services/.

Admission Information:

- Undergraduate students visit https://www.tarleton.edu/admissions/.
- Graduate students visit Admission Requirements | Graduate Studies (tarleton.edu) (https://www.tarleton.edu/graduate/future/admission-requirements/).

Applicants to one of the Tarleton State Online undergraduate programs for first time college students must meet the first year in college admission standards for Tarleton State University: https://www.tarleton.edu/admissions/

On-site Support and Campus Assignment:

Students residing in the counties below will have their designated campus for billing and registration. All others are designated as a Distance Learner Online. As a Tarleton State Online student, you can visit any Tarleton State location in Stephenville, Fort Worth, Waco or Bryan for on-site support and services.

- Stephenville - Comanche, Eastland, Erath, Hamilton, Hood, Palo Pinto & Somervell
- Fort Worth - Dallas, Ellis, Johnson, Parker & Tarrant
- Waco - McLennan & Hill
- Bryan - Brazos
- Distance Learner Online - All Other Counties

Prospective out-of-state students can visit https://nc-sara.org/directory (https://nc-sara.org/directory/) for more information about whether Tarleton State University is authorized to provide distance education in their state of residence.

For additional information, please contact Tarleton State Online at online@tarleton.edu.

Center for Educational Excellence

Dr. Misty Smith, Associate Dean for Faculty Affairs and Development
Center for Educational Excellence
Stephenville, TX 76402
254-968-0710
mistysmith@tarleton.edu

Center for Educational Excellence
Box T-0990
Dick Smith Library - Room 140
Stephenville, TX 76401
254-968-9060
cee@tarleton.edu
www.tarleton.edu/cee (http://www.tarleton.edu/cee/)

The Center for Educational Excellence strives to develop and support faculty in teaching and learning as well as experiential and community-engaged learning efforts to provide transformational academic experiences for students. The CEE celebrates faculty excellence and supports faculty with initiatives such as New Faculty Academy, Educational Excellence Week, ACUE training, and more!

The Instructional Development and Course Design pillar seeks to promote research-based teaching practices by:

- providing professional development programming for faculty, including the Scholarship of Teaching and Learning (SOTL) program
- creating and supporting quality faculty development initiatives
- providing access to a team of instructional consultants who are well versed in academic technology and teaching practices
- developing and conducting workshops and individualized online courses to support and improve teaching by modeling evidence-based teaching practices

The Experiential and Community-Engaged Learning pillar supports experiential and community-engaged teaching and learning by:

- Providing professional development programming for faculty, including the Experiential and Community-Engaged Learning (EXCEL) program
- Facilitating Service-Learning Day
- Celebrating the community-engagement initiatives of our faculty, staff, and students
- Managing campus American Democracy Project initiatives
- Developing community-based and internal partnerships to support student learning outcomes

Student Engagement and Success

The Division of Student Engagement and Success from Student Affairs creates communities that provide a sense of belonging and engages students to be successful. To achieve this mission, Student Engagement and Success from Student Affairs provides outstanding programs and services for students in the following departments: Assessment & Strategic Initiatives, Campus Recreation, Dean of Students Administrative Office, Lance Zimmerman Department of Campus Life & Family Engagement, Residence Life, Rodeo Activities, Student Counseling Services, Student Government Association, Student Health Services, Student Resources and Basic Needs, Student Media, and University Police.

Assessment & Strategic Initiatives

Assessment & Strategic Initiatives promote holistic student success by contributing to a culture of continuous improvement and strategic alignment for departments within the Division of Student Engagement and Success. In addition, the department of Assessment & Strategic Initiatives assists with University-wide assessments such as the National Survey of Student Engagement (NSSE). Administered assessments provide stakeholders with data to make evidence-based decisions in order to offer relevant programs and services.

Campus Recreation

The Department of Campus Recreation provides a variety of recreational experiences that inspire student and lifelong well-being. The Department of Campus Recreation has 6 major program areas that provide quality services to the Tarleton State University community. These programs include Intramural Sports, Fitness, Outdoor Adventure, Sport Clubs, Aquatics, and Informal Recreation.

- The Campus Recreation Center is a 70,000 square-foot facility, housing a weight room, climbing wall, three racquetball courts, men's and women's locker rooms, outdoor pursuits equipment check-out, three basketball/volleyball courts, three badminton courts, and two classrooms. The second floor includes two group fitness rooms, cardio machines, a three-lane track, and the administrative office suite.
- The Aquatics Center is a 10,000 sq. ft. facility which includes a 168,000-gallon indoor lap pool with 8-lanes, each 25-yards in length. This Aquatics Center also has a 62,000-gallon outdoor leisure pool that includes cabanas and a tanning area. The outdoor pool activities include water basketball and water volleyball. This facility has a wet classroom and locker rooms. Memberships are available for students, faculty, staff, retirees, alumni, spouses, and community members.
- The Vance Terrell Intramural Complex is equipped with all-purpose fields to serve Intramural and Sport Club events. Intramural Sports programs played at this facility include flag football, and soccer. Sport Club matches hosted at this facility include rugby, lacrosse, and soccer.
- Fitness/Wellness programming is available to meet the fitness and wellness needs of Campus Recreation students and members. Examples of wellness include Group Fit classes, weight room and cardio areas of the facility, personal training services, and wellness workshops.
- Tarleton Challenge Course is an energizing ropes course learning experience through a combination of high and low elements conducted by trained facilitators. Participants enjoy safe, fun, unique, and innovative opportunities to promote group and personal growth and team-building, as well as communication and trust.
- The Esports Lounge is a facility managed by Campus Recreation and is located in the Thompson Student Center. The lounge has 10 Esports stations and is used for open recreation and Esports Club practices and competitions.

For more information visit www.tarleton.edu/campusrec (http://www.tarleton.edu/campusrec/) or call 254-968-9912.

Dean of Students Administrative Office

The Dean of Students Administrative Office is committed to student success by advocating for students navigating personal and educational challenges. We support a respectful and safe campus environment, holistic wellness, and our students' connection to and belonging on campus and in our larger community. Essential support is provided to students in the following areas: student conduct, Campus Assessment, Response, and Evaluation (CARE) team, student concerns & grievances, prevention programming, coordination of foster care and parenting initiatives, and absence requests. All students are expected to act with integrity, excellence, and respect while attending Tarleton State University and to follow the Student Conduct Code (https://www.tarleton.edu/studentrules/code-of-student-conduct/). Our office is committed to student success and dedicated to helping students find answers and resolutions to their concerns both within and outside of the classroom. For additional information and support visit: https://www.tarleton.edu/deanofstudents/. You may also contact us by email deanofstudentsoffice@tarleton.edu or phone 254-968-9080.

The Lance Zimmerman Department of Campus Life & Family Engagement

The Division of Student Engagement and Success includes the Department for Campus Life and Family Engagement to involve, connect and enrich the experience for all students and their families.

While academic success is the highest priority, participation in co-curricular opportunities enrich the student experience while enhancing social development, leadership skills and other career readiness competencies that support student marketability post-graduation. The Lance Zimmerman Department of Campus Life & Family Engagement adds an important dimension to the university experience. Through involvement and connection with the Center for Leadership and Service, community event attendance, membership in recognized student organizations, fraternity, sorority engagement, Tarleton Activities Board participation, students experience increased student success. As students get involved on campus, they build a portfolio of experiences that demonstrate skills gained, outside the classroom, through their Texan Trail Transcript.

The Lance Zimmerman Department of Campus Life & Family Engagement also supports family connection and communication through Tarleton's family portal, CampusESP. Each of these initiatives help students find their place, build a network amongst their peers and customize their experience to develop marketable skills that carry them beyond Tarleton's gates to successfully enter the job market.

Please feel free to contact us at student involvement@tarleton.edu or (254) 968-9490.

Residence Life

Work performed by staff in Residence Life transforms students through a community experience that promotes intentional connections to peers, faculty, staff, resources, and invaluable learning experiences.

Tarleton State University offers at least 12 residential communities that provide a wide variety of room designs and price points to meet the needs of our diverse student body. Each residential community offers a unique and comfortable environment for students. Residence hall rooms are equipped with bedroom furniture, cable TV (TV not provided), and Internet/WIFI as well as a combination refrigerator/freezer with a microwave unit. Apartments are similarly equipped but without microwave units and some contain in-unit laundry equipment (Texan Hall). Laundry facilities are offered in each residence hall. Hall staff members live on-site and among the residents to provide students with the assistance needed to succeed socially and academically.

Effective August 2023 students classified as first-time in college have a one-year on-campus residency requirement. Regardless of the on-campus room/building assignments, residents are required to purchase a meal plan. First-year students must select at least a 12-meals/week meal plan. Visit https://www.tarleton.edu/housing/meal-plan-details.html for specific information regarding meal plans.

On-Campus Housing Requirement

Residing on campus creates an environment where students experience more success. Therefore, Tarleton supports an on-campus living requirement of:

One (1) academic year for:

- all “First Time Freshman” students who are younger than 21 years of age, prior to the start of the first registered semester.

As a resident of campus housing, a student must have a meal plan for use in University dining facilities. The housing contract occupancy period is the entire academic year, which includes both the fall and spring semesters.

A student may request an exemption to the campus residency requirement for one of the following reasons:

- The student graduated from high school at least two years prior to the start of the semester.
- The student will be 21 years of age or older prior to the start of the semester.
- The student is a married student or a single parent with at least one dependent child.
- The student currently resides in and will continue to reside, in the established primary residence of a parent or legal guardian (or other family member) within 60 miles of the Tarleton State University Stephenville Campus.
- The student will reside with a sibling who is a registered student at Tarleton State University and will reside at the address that is located within 45 miles of the Tarleton State University Stephenville Campus.
- The student is a transfer student with 60 or more successfully completed transfer credit hours that are not AP/Advanced Placement and/or dual credit hours.
- The student is taking eight credit hours or fewer as a part-time student.
- The student has a financial hardship.
- Acceptance to Texas A&M University in College Station after enrollment in Tarleton State University's Program for System Admission (PSA).

A student may request an exemption to the campus residency requirement by submitting the Off-Campus Request Form. To access this form, students log into the Housing link through DuckTrax on MyGateway (https://www.tarleton.edu/mygateway/). Each Off-Campus Request should be carefully reviewed for required documentation as part of the submission process.

It is recommended that students not arrange to live off-campus until the Off-Campus Request Form with supporting documentation has been reviewed and approved by the Department of Residence Life staff. Submission of the Off-Campus Request Form can only occur through the housing portal, which is accessed by the student. For more information about exemptions to Tarleton's Campus Housing Residency Requirement or the Off-Campus Request Form, call the Department of Residence Life at 254-968-9083 from 8 a.m. to 5 p.m. Mondays through Fridays.

Housing Application

Housing application information is available online at Apply for Tarleton Housing (https://www.tarleton.edu/housing/apply/). Students may complete their housing application through their "student" tab found after logging in through MyGateway (https://www.tarleton.edu/mygateway/). A $100 non-refundable application fee must be submitted with all applications. Applications are processed for assignment in order of the date they are completed. A housing application is not complete until the $100 non-refundable application fee has been submitted and the student has been admitted to the university. Contact the Department of Residence Life at 254-968-9083 or visit www.tarleton.edu/housing (http://www.tarleton.edu/housing/) for more information.

Meningitis Vaccine

Texas Legislative Bill 4189 requires each student assigned to live on-campus to provide proof of a meningitis vaccine obtained no less than 10 days prior to the first day of class. For more details about this requirement, go to www.tarleton.edu/admissions/bacterial-meningitis.html (http://www.tarleton.edu/admissions/bacterial-meningitis.html) or call 254 968-9125.

Rodeo Activities

The Office of Rodeo Activities provides students the opportunity to remain involved in rodeo activities at the intercollegiate level as they study for their undergraduate and graduate degrees. Tarleton State University is a member of the National Intercollegiate Rodeo Association (NIRA) and competes in the Southwest Region as one of the largest teams in the nation. The Tarleton Rodeo team provides students with the opportunity to be a part of and participate in events such as the Halloween Rodeo, 10 NIRA-sanctioned rodeos, and various fundraising events. Interaction with the Stephenville and surrounding communities allows students to meet with potential future employers once they complete their degrees. Scholarships are available for rodeo athletes based on success both academically and in the arena. For more information go to www.tarleton.edu/rodeo (http://www.tarleton.edu/rodeo/) or call 254-968-9187.

Student Counseling Services

Student Counseling Services provides mental health and wellness support to the Tarleton State University student body. We offer a variety of services to meet the wide array of our students’ needs, from mental health training, collaborative outreach, and wellness workshops to a variety of clinical services including counseling groups, single-session individual appointments, and brief, individual counseling. Our clinicians are generalist counselors who are licensed to practice in the State of Texas. When a higher level of care or specialization is necessary, we coordinate and/or refer to appropriate providers. We provide consultation to our campus community, work collaboratively across departments and divisions, and promote resiliency, connection, hope, and healing across our community. Student Counseling Services is committed to providing quality care that meets the needs of a dynamic, ever-changing university community. Appointments may be scheduled by calling 254-968-9044 or stopping by the Wellness Center on the Stephenville Campus or the counseling center on the first floor of the Ft. Worth Learning Center (entrance by the flagpoles). All counseling services are confidential within the limits outlined by Texas Law and professional ethics. For more information go to www.tarleton.edu/counseling (http://www.tarleton.edu/counseling/) or call 254-968-9044.

Student Government Association

The Student Government Association is the representative voice of Tarleton students and it is directly responsible for bringing the interests and concerns of students to the attention of the administration and university community. Within SGA is the Freshman Representative Council designed for new incoming students to begin their leadership journey. For more information, go to the Student Government Association website: www.tarleton.edu/sga (http://www.tarleton.edu/sga/).

Student Health Services

Student Health Services provides health care services to students enrolled at Tarleton State University including the Stephenville, Fort Worth, Midlothian, RELIS-Bryan, and Waco locations. The student health fee covers office visits. Reasonable fees are charged for treatment, injections, tests and medications. Identification card presentation is required with each visit.

Services provided include prescription and over-the-counter medications, treatment of minor/acute illnesses and injuries, suturing of simple lacerations, removal of simple skin lesions, services of a medical doctor or Advanced Practice Provider, administration of allergy injections as directed by the student’s allergist, consultations regarding any health problems (including referrals), blood pressure checks and the continuation of health care following surgery or illness as directed by a physician.

Students who have graduated from a public school in Texas should have current immunization status. The State of Texas requires students who will be living on campus for the first time to show proof of vaccination against Bacterial Meningitis. The vaccination for Bacterial Meningitis must be received at least 10 days prior to moving on campus. Tuberculosis (TB) testing, tetanus, meningitis, influenza and hepatitis B vaccines are available at the Student Health Center. Physical exams and women’s health exams are also available for a reasonable fee. Health literature is available for personal and educational purposes.

All x-rays, laboratory tests, and medical services conducted outside of the Student Health Center are performed at the student's expense. Student Health Services is an advocate for the physically disabled. The university offers students a comprehensive injury and sickness insurance plan through the Texas A&M System to cover students beyond the resources of Student Health Services. For more information, call 254-968-9271 or go to www.tarleton.edu/healthservices (http://www.tarleton.edu/healthservices/).

Student Resources and Basic Needs

Student Resources and Basic Needs, including the Purple Pantry and CCAMPIS Program, is transforming generations by empowering students to meet their basic needs in order to increase retention and help more Texans graduate with excellence and career-ready skills. The Department of Student Resources and Basic Needs will collaborate to empower and support students facing obstacles across all of our campuses. Obstacles might include issues with rent, childcare, transportation, food, academic materials, etc. We value holistic goodness, retention, and graduation, especially from underrepresented populations, such as first-generation students. We will regularly assess and measure our progress and celebrate student successes. Our end goal is to provide students with a thriving learning environment in which they can graduate and have opportunities that will provide them with economic mobility and security. If you would like to donate to the Student Resources and Basic Needs Gift Fund, please click on the link below and then click on "Donate to Student Resources & Basic Needs". Your funds will be used to empower students moving forward by assisting with their needs today. If you have physical donations you would like to bring to the Purple Pantry, please drop them off in Suite 212 of the Student Center, Monday-Friday 8-5.

Student Resources & Basic Needs (https://www.tarleton.edu/texconnect/)

Student Media

The department of Student Media guides the production of JTAC News, the official Tarleton State University student newspaper; the Grassburr, the annual yearbook for Tarleton State University; and manages the on-campus print shop, The Source. The department drives marketing and communication efforts for the Division of Student Engagement and Success. Student Media enhances the Tarleton State University student experience through student-driven multimedia and providing quality publications through the use of student values and ideas while providing a creative outlet for free expression. As a student-focused and student-driven department, Student Media offers Tarleton State students various opportunities to gain hands-on experience, develop critical personal and career skills, and create powerful portfolios. For more information, email studentmedia@tarleton.edu or visit www.tarleton.edu/studentmedia (http://www.tarleton.edu/studentmedia/). Learn more about JTAC News at www.jtacnews.com (http://www.jtacnews.com/).

Follow @tarletonstudent for more on events and wellness on campus!

University Police Department

The safety and security of the campus community is the number one priority of the University Police Department. Staffed by fully licensed police officers, the department operates around the clock and every day to ensure a positive environment for students to live, learn and interact. Additionally, the department offers safety escorts across campus vehicle jump-starts for dead batteries and will unlock your car if your keys are locked inside. Call 911 for emergencies or 254-968-9001 for anything else. We are always just a phone call away.

Accreditation

Southern Association of Colleges and Schools Commission on Colleges
1866 Southern Lane
Decatur, Georgia 30033-4097
(404) 679-4500
(404) 679-4558
https://sacscoc.org/ (http://https://sacscoc.org/)

Tarleton State University is accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) to award associate, baccalaureate, masters, and doctorate degrees. Questions about the accreditation of Tarleton may be directed in writing to the Southern Association of Colleges and Schools Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097, by calling (404) 679-4500, or by using information available on SACSCOC's website (www.sacscoc.org).

Principle of equal opportunity

It is the policy of Tarleton State University to recruit, hire, train, and promote persons, as well as to make available any other programs and activities, including those for students, without regard to race, color, sex (except in rare occasions where gender is a bona fide occupational qualification), religion, national origin, age, disability, genetic information, veteran status, sexual orientation, or gender identity. Inquiries regarding compliance may be directed to the Equal Opportunity Coordinator (254) 968-9128, the Director of Student Disability Services (254) 968-9400, or the Coordinator of Disability Services (254) 968-9103.

Equal Educational Policy

In compliance with Title VI of the Civil Rights Act of 1964 and Title IX of the Education Amendments of 1972, complete equality exists in the offering of all benefits to students without regard to sex, race, color, or national origin. These benefits include such matters as housing, financial assistance, recruitment, and any type of personnel service.

Privacy of Information

Under the Family Educational Rights and Privacy Act of 1974, the following data are designated as directory information and may be made public unless the student desires to withhold it: student's name, student type, mailing address, official email address, major field of study, military service status, classification, participation in officially recognized activities and sports, dates of University attendance, degrees and academic honors received, and the most recent previous education agency or institution attended. Any undergraduate or graduate student wishing to withhold all of this information should, within 10 days after the first class day, complete the appropriate form, available at the Registrar's Office. For more information about FERPA, please visit www.tarleton.edu/registrar (http://www.tarleton.edu/registrar/).

Clery Act

The Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act (Clery Act) requires higher education institutions to make public their campus security policies and release to the campus community crime data collected or reported. In compliance with the Clery Act, Tarleton State University is required to distribute this information to all current and prospective employees and students.

The Annual Security Report and Fire Safety Report contains information about university security rules/procedures and statistics for the previous three years concerning reported crimes that occurred on campus; in certain off-campus buildings or property owned or controlled by Tarleton; and on public property within or immediately adjacent to and accessible from the campus. It also includes information regarding fire safety for student housing and fire statistics.

Tarleton's current Annual Security and Annual Fire Safety Report can be found here (https://www.tarleton.edu/police/reports-stats/clery-act/). Please call the Department of Compliance at 254-968-9415 for printed copies of the report.

Administration

President	Dr. James Hurley
Provost and Executive Vice President of Academic Affairs	Dr. Barry Lambert
Vice President of Finance and Administration	Dr. Brett Powell
Vice President for University Strategy and Chief of Staff	Dr. Credence Baker
Vice President and Chief Human Resources Officer	Mr. Donny Beasley
Vice President for Global, Community, and First-Gen Initiatives	Dr. Sherri Benn
Vice President for External Operations and Dean of Fort Worth	Dr. Rachel Capua
Vice President of Enrollment Management	Dr. Javier Garza
Vice President of Research, Innovation and Economic Development	Dr. Rupa Iyer
Vice President of Student Engagement and Success	Dr. Diana Ortega
Vice President for Division of Health Sciences and Executive Dean of College of Osteopathic Medicine	Dr. Elizabeth Palmarozzi
Vice President for Intercollegiate Athletics	Mr. Steve Uryasz
Vice President of Institutional Advancement	Mr. Anthony Vidmar

	Phone	T-Box
Academic Advising Center	(254) 968-9746	T-0955
Academic Affairs	9103	T-0010
Admissions:		
Undergraduate 1-800-687-8236	9125	T-0030
Graduate 1-800-687-4723	9104	T-0350
Athletics	9178	T-0080
Barry B. Thompson Student Center	9000	T-0570
Business Services	9107	T-0120
Campus Bookstore	9007	T-0850
Campus Tours	9845	T-0610
College of Graduate Studies	9104	T-0350
Corp of Cadets	9188	T-480
Disability Resources and Testing	9650	T-0780
Division of Student Engagement and Success	9081	T-0680
Financial Aid	9070	T-0310
Honors College	1926	T-0545
Information:		
During regular office hours	9000	
At other times	9265	
Library	9937	T-0450
Lozano Long Division of Global, Community and First-Gen Initiatives	9488	T-0490
Military Veterans' Services	1805	T-0960
President's Office	9100	T-0001
Prospective Student Engagement	9256	T-0670
Recreational Sports	9912	T-0420
Registrar	9121	T-0620
Residential Life	9083	T-0280
Scholarship Office	9922	T-0760
Student Counseling Services - Fort Worth	(682) 703-7048	CAB 150
Student Counseling Services - Stephenville	9044	T-0240
Student Development and Mentoring	9480	T-0700
Texan Card	1880	T-0910
Transcripts	9121	T-0620
Tutoring and Learning Center	9293	T-0345
Undergraduate Recruitment/Welcome Center	9845	T-0610
University Police	9001	T-0560

Requests for information should be directed to the offices listed above, and all correspondence should include T-Box number. The University's mailing address for all inquiries is:

Tarleton State University
T-(Box number)
Stephenville, TX 76402

For phone numbers, area code and first three digits are 254 and 968, respectively.

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