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UNDERGRADUATE CATALOG

The Undergraduate Catalog pertains to students pursuing a baccalaureate or a post-baccalaureate degree at Texas A&M University-Central Texas. As an upper-level institution, A&M-Central Texas has developed agreements with Central Texas community colleges that enable a seamless transfer without the loss of credits.

View on YouTube (https://www.youtube.com/watch?v=cji0aNCT6yk)

Undergraduate University Information

Texas A&M University-Central Texas (A&M-Central Texas), located in Killeen, Texas, is an upper-level, regional institution serving Central Texas. A&M-Central Texas offers junior- and senior-level coursework needed to successfully complete baccalaureate degrees and all coursework leading to the completion of graduate (master's and specialist) degrees. A&M University-Central Texas was established on September 1, 1999, as Tarleton State University-Central Texas, and became a stand-alone university on May 27, 2009, one of 11 universities within the A&M System which became a separately accredited institution in June 2013 through the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC), retroactive to January 1, 2013.

A&M-Central Texas traces its roots back to 1973, when the American Technological University (ATU) was formed. In September of 1973, more than 30 years before it would become known as A&M-Central Texas, ATU opened it doors, marking an historical effort on behalf of the citizens of this region to establish an upper-division institution in Central Texas. While the early curriculum placed a great deal of emphasis on technological programs—offering baccalaureate degrees in subjects such as general technology, computer science, and industrial technology—ATU progressed toward the liberal arts as it grew, adding degrees in counseling, psychology, criminal justice, and social work. This led ATU to officially change its name to the University of Central Texas (UCT) in September 1989. ATU experienced a concurrent growth in enrollment, from approximately 550 student in 1988 to more than 1000 in 1997.

In October of 1998, the Texas Higher Education Coordinating Board (THECB) supported a proposal from Tarleton State University to facilitate a university system center in Central Texas. UCT gifted more than $7 million in assets to Tarleton State University to facilitate the formation of this new institution.

The Texas A&M University System is one of the largest systems of higher education in the nation, with a budget of $6.3 billion. Through a statewide network of 11 universities and seven state agencies, the Texas A&M System educates more than 153,000 students and makes more than 22 million additional educational contacts through service and outreach programs each year.

History of Name Changes

<table>
<thead>
<tr>
<th>Year Range</th>
<th>Name Change</th>
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<tbody>
<tr>
<td>1973 - 1989</td>
<td>American Technological University</td>
</tr>
<tr>
<td>1989 - 1999</td>
<td>University of Central Texas</td>
</tr>
<tr>
<td>1999 - 2009</td>
<td>Tarleton State University-Central Texas</td>
</tr>
</tbody>
</table>

Geographic Service Area and Student Population

A&M-Central Texas is located on 672 acres of beautiful land at the intersection of State Highway 195 and State Highway 201 in Killeen. The land was transferred to The Texas A&M University System from the U.S. Army in the summer of 2009. The university's service area includes Central Texas. In addition to classes on the main campus, classes are also offered at the East Williamson County Higher Education Center in Hutto, Texas, and through the RELLIS Academic Alliance at the RELLIS Campus in Bryan. The university provides a wide range of flexible course schedules, including online, hybrid, evening, and weekend classes.

Full-time faculty, advisors, and support staff are available to assist students with admission, financial aid, degree plans, and career planning. As an upper-level institution, A&M-Central Texas has developed agreements with Central Texas community colleges that enable a seamless transfer without the loss of credits. In addition, A&M-Central Texas faculty and staff actively engage in dialog with representatives from area community colleges to monitor instructional need and to ensure appropriate access to educational opportunity at all levels.

The student population at A&M-Central Texas is diverse and growing. The institution currently serves over 2,400 students, and more than 7,500 students have graduated with a baccalaureate or graduate degree since 2009.

A&M-Central Texas is a member of GoArmyEd, a virtual gateway for soldiers on active duty who may at any time request Tuition Assistance (TA) online for classroom, distance learning, and eArmyU online college courses. GoArmyEd is used by soldiers as a one-stop shop to pursue and manage their postsecondary educational goals; by Army Education Counselors to provide educational guidance; and by colleges to deliver degree and course offerings and to report soldiers’ progress.

Newly admitted A&M-Central Texas students are required to complete an application for admission and meet with an academic advisor to review degree plans. For current students, registration is available online. The university offers programs to assist students with academic advising, special needs, tutoring, counseling, and career services.
# Academic Calendars and Registration Schedules

The following calendar is proposed and scheduled to change without notice.

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>August 10, 2020</td>
<td>Classes Begin for Minimester</td>
</tr>
<tr>
<td>August 21, 2020</td>
<td>Classes End for Minimester</td>
</tr>
<tr>
<td>August 24, 2020</td>
<td>Add, Drop, and Late Registration Begins for 16- and First 8-Week Classes</td>
</tr>
<tr>
<td>August 26, 2020</td>
<td>Classes Begin for Fall Semester</td>
</tr>
<tr>
<td>August 31, 2020</td>
<td>Deadline for Add, Drop, and Late Registration for 16- and First 8-Week</td>
</tr>
<tr>
<td>September 7, 2020</td>
<td>Labor Day (University Closed)</td>
</tr>
<tr>
<td>September 9, 2020</td>
<td>Deadline to drop 16-week Classes with No Record</td>
</tr>
<tr>
<td>September 11, 2020</td>
<td>Deadline to Drop First 8-week Classes with No Record</td>
</tr>
<tr>
<td>October 1, 2020</td>
<td>Deadline for Teacher Education Program Applications</td>
</tr>
<tr>
<td>October 2, 2020</td>
<td>Deadline to Drop First 8-week Classes with a Quit (Q) or Withdraw (W)</td>
</tr>
<tr>
<td>October 15, 2020</td>
<td>Deadline for Clinical Teaching/Practicum Applications</td>
</tr>
<tr>
<td>October 16, 2020</td>
<td>Classes End for First 8-week Session</td>
</tr>
<tr>
<td>October 16, 2020</td>
<td>Deadline to Withdraw from University for First 8-Week Classes (WF)</td>
</tr>
<tr>
<td>October 19, 2020</td>
<td>Add, Drop, and Late Registration Begins for Second 8-Week Classes</td>
</tr>
<tr>
<td>October 19, 2020</td>
<td>Classes Begin for Second 8-week Session</td>
</tr>
<tr>
<td>October 20, 2020</td>
<td>Class Schedule Published for Spring Semester</td>
</tr>
<tr>
<td>October 21, 2020</td>
<td>Deadline for Faculty Submission of First 8-week Class Final Grades (due by 3pm)</td>
</tr>
<tr>
<td>October 26, 2020</td>
<td>Deadline to Add, Drop, and Late Registration for Second 8-Week Classes</td>
</tr>
<tr>
<td>October 30, 2020</td>
<td>Deadline for Graduation Application for Fall Ceremony Participation</td>
</tr>
<tr>
<td>November 1, 2020</td>
<td>Deadline for GRE/GMAT Scores to Graduate School Office</td>
</tr>
<tr>
<td>November 2, 2020</td>
<td>Registration Opens for Spring Semester</td>
</tr>
<tr>
<td>November 6, 2020</td>
<td>Deadline to Drop 16-Week Classes with a Quit (Q) or Withdraw (W)</td>
</tr>
<tr>
<td>November 11, 2020</td>
<td>Veteran’s Day (University Closed)</td>
</tr>
<tr>
<td>November 20, 2020</td>
<td>Deadline for Final Committee-Edited Theses Fall Semester with Committee Approval Signatures to Graduate School Office</td>
</tr>
<tr>
<td>November 26-27, 2020</td>
<td>Thanksgiving (University Closed)</td>
</tr>
<tr>
<td>November 27, 2020</td>
<td>Deadline to Drop Second 8-Week Classes with a Quit (Q) or Withdraw (W)</td>
</tr>
<tr>
<td>December 11, 2020</td>
<td>Deadline to Withdraw from University for 16- and Second 8-Week Classes</td>
</tr>
<tr>
<td>December 11, 2020</td>
<td>Fall Semester Ends</td>
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</table>
**Texas A&M University Central Texas 2020-2021**

May 14, 2021  
Deadline for Spring Degree Conferral Applications to the Registrar’s Office. $20 Late Application Fee.

May 15, 2021  
Spring Commencement Ceremony Bell County Expo 7 pm

May 17, 2021  
Classes Begin for Minimester

May 18, 2021  
Deadline for Faculty Submission of 16-Week and Second 8-Week Final Class Grades (due by 3pm)

May 18, 2021  
Deadline for Theses to Clear Graduate School Office for Spring Semester

May 31, 2021  
Memorial Day (University Closed)

June 4, 2021  
Minimester Ends

June 7, 2021  
Add, Drop, and Late Registration Begins for 10-, 8- and First 5-Week Classes. $25 Fee assessed for late registrants

June 7, 2021  
Classes Begin for First 5-, 10-, and 8-Week Summer Session

June 10, 2021  
Deadline to Drop First 5-Week Classes with No Record

June 14, 2021  
Deadline to Drop 8-Week Classes with No Record

June 22, 2021  
Deadline to Drop 10-Week Classes with No Record

June 25, 2021  
Deadline to Drop First 5-Week Classes with a Quit (Q) or Withdraw (W)

July 1, 2021  
Deadline for Teacher Education Program Applications

July 2, 2021  
Deadline for Summer Graduation Application

July 5, 2021  
Independence Day (University Closed)

July 9, 2021  
Classes End for First 5-Week Session

July 9, 2021  
Deadline to Withdraw from the University for First 5-Week Classes

July 12, 2021  
Add, Drop, and Late Registration Begins for Second 5-Week Classes. $25 Fee assessed for late registrants

July 12, 2021  
Classes Begin Second 5-Week Summer Session

July 13, 2021  
Deadline for Faculty Submission of First 5-Week Final Class Grades (due by 3pm)

July 15, 2021  
Deadline to Drop Second 5-Week Classes with No Record

July 15, 2021  
Deadline for Clinical Teaching/Practicum Applications

July 23, 2021  
Deadline for Final Committee-Edited Theses with Committee Approval Signatures for Summer Semester to Graduate School Office

July 23, 2021  
Deadline to Drop 10-Week Classes with a Quit (Q) or Withdraw (W)

July 30, 2021  
Classes End for 8-Week Session

July 30, 2021  
Deadline to Drop Second 5-Week Classes with a Quit (Q) or Withdraw (W)

July 30, 2021  
Deadline to Withdraw from the University for 8-Week Classes

August 1, 2021  
Deadline for GRE/GMAT Scores to Graduate School Office

August 3, 2021  
Deadline for Faculty Submission of 8-Week Final Class Grades (due by 3pm)

August 13, 2021  
Classes End for 10- and Second 5-Week Sessions

August 13, 2021  
Deadline to Withdraw from the University for 10- and Second 5-Week Classes

August 13, 2021  
Deadline for Applications for Tuition Rebate for Summer Graduation (5pm)

August 13, 2021  
Deadline for Summer Degree Conferral Applications to the Registrar’s Office. $20 Late Application Fee

August 13, 2021  
Summer Commencement Ceremony Bell County Expo 7 pm

August 17, 2021  
Deadline for Faculty Submission of 10-Week and Second 5-Week Final Class Grades (due by 3pm)

August 17, 2021  
Deadline for Theses to Clear Graduate School Office for Summer Semester

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**Campus Office Directory**

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<thead>
<tr>
<th>Office</th>
<th>Name</th>
<th>Location</th>
<th>Phone</th>
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<tbody>
<tr>
<td>Academic Affairs, Assistant Provost/</td>
<td>Dr. Kellie Cude</td>
<td>FH424</td>
<td>254-501-5839</td>
</tr>
<tr>
<td>Assistant Vice President</td>
<td></td>
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<tr>
<td>Enrollment Management, Assistant Vice</td>
<td>Clifton Jones</td>
<td>FH429</td>
<td>254-519-5424</td>
</tr>
<tr>
<td>President</td>
<td></td>
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<tr>
<td>Information Technology, Assistant Vice</td>
<td>Todd Lutz</td>
<td>FH</td>
<td>254-519-5426</td>
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<tr>
<td>President</td>
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<tr>
<td>Student Affairs, Dean/Assistant Vice</td>
<td>Dr. Brandon Griggs</td>
<td>WH105</td>
<td>254-501-5909</td>
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<tr>
<td>President</td>
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<tr>
<td>College of Arts and Sciences, Dean</td>
<td>Dr. Jerry Jones</td>
<td>HH204</td>
<td>254-519-5446</td>
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<tr>
<td>College of Business Administration,</td>
<td>Dr. Faiza Khoja</td>
<td>FH318</td>
<td>254-519-5437</td>
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<tr>
<td>Dean</td>
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<tr>
<td>College of Education and Human</td>
<td>Dr. Jeffrey Kirk</td>
<td>WH 318A</td>
<td>254-501-5837</td>
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<tr>
<td>Development, Dean</td>
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<tr>
<td>Graduate School, Dean</td>
<td>Dr. Kellie Cude</td>
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<td>Advancement and Alumni Services,</td>
<td>Dr. Karen Clos</td>
<td>FH318</td>
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<tr>
<td>Executive Director</td>
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<tr>
<td>Admissions and Recruitment, Director</td>
<td>Joshua Smith</td>
<td>FH218</td>
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<tr>
<td>Human Resources, Director</td>
<td>Tina Flores-Nevarez</td>
<td>WH424</td>
<td>254-519-8610</td>
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<tr>
<td>Enterprise Applications, Executive</td>
<td>Gail Wallin</td>
<td>FH113</td>
<td>254-519-5426</td>
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<tr>
<td>Director</td>
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<tr>
<td>Institutional Research and Assessment,</td>
<td>Paul Turcotte</td>
<td>FH404</td>
<td>254-519-5712</td>
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<tr>
<td>Director</td>
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</tbody>
</table>
Student Financial Assistance, Director
Irene Montalvo
FH108
254-501-5852

University Registrar
Hannah McDonald
FH216
254-501-5857

Safety and Risk Management
Shawn Kelley
WH425
254-519-5771

University Police
Sergeant Andrew Flores
FH103
254-501-5800

Board of Regents and Administration

Texas A&M University-Central Texas Administration
President
Dr. Marc A. Nigliazzo

Provost/Vice President for Academic and Student Affairs
Dr. Peg Gray-Vickrey

Vice President for Finance and Administration - Interim
Mr. Todd Lutz

Vice President for Research and Economic Development
Dr. Russell Porter

Texas A&M University System

Board of Regents

<table>
<thead>
<tr>
<th>Name</th>
<th>Location</th>
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<tbody>
<tr>
<td>Mr. John Sharp (Chancellor)</td>
<td>College Station</td>
</tr>
<tr>
<td>Ms. Elaine Mendoza (Chair)</td>
<td>San Antonio</td>
</tr>
<tr>
<td>Mr. Tim Leach (Vice Chair)</td>
<td>Midland</td>
</tr>
<tr>
<td>Mr. Phil Adams</td>
<td>Bryan/College Station</td>
</tr>
<tr>
<td>Mr. Robert L. Albritton</td>
<td>Fort Worth</td>
</tr>
<tr>
<td>Mr. Jay C. Graham</td>
<td>Houston</td>
</tr>
<tr>
<td>Mr. Michael A. Hernandez III</td>
<td>Ft. Worth</td>
</tr>
<tr>
<td>Mr. Bill Mahomes</td>
<td>Dallas</td>
</tr>
<tr>
<td>Mr. Michael J. Plank</td>
<td>Houston</td>
</tr>
<tr>
<td>Mr. Cliff Thomas</td>
<td>Victoria</td>
</tr>
<tr>
<td>Levi McClenny, Student Regent</td>
<td>Houston</td>
</tr>
</tbody>
</table>

The Texas A&M University System includes:
- Texas A&M University
- Prairie View A&M University
- Tarleton State University
- Texas A&M International University
- Texas A&M University-Corpus Christi
- Texas A&M University-Kingsville
- West Texas A&M University
- Texas A&M University-Commerce
- Texas A&M University-Texarkana
- Texas A&M University-Central Texas
- Texas A&M University-San Antonio
- Texas A&M AgriLife Research
- Texas A&M Engineering Experiment Station
- Texas A&M AgriLife Extension Service
- Texas A&M Forest Service
- Texas A&M Engineering Extension Service
- Texas A&M Transportation Institute
- Texas A&M Veterinary Medical Diagnostic Laboratory
- Texas A&M System Sponsored Research Services
- Texas A&M System Health Science Center

Accreditation

University Accreditation
A&M-Central Texas is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award baccalaureate, master’s, and specialist degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097, or call 404-679-4500 for questions about the accreditation of A&M-Central Texas.

College of Arts and Sciences
The baccalaureate degree in nursing at A&M-Central Texas is accredited by the Commission on Collegiate Nursing Education, 655 K Street Northwest, Suite 750, Washington, DC 20001. For more information contact the commission by either phone: 202-887-6791 or the website: www.aacnursing.org.

The baccalaureate of social work program at A&M-Central Texas is accredited by the Council on Social Work Education (CSWE) 1701 Duke Street, Suite 200, Alexandria, VA 22314-3457. For more information contact the council by either phone: 703-683-8080 or the website: info@cswe.org

College of Business Administration
Accreditation Council for Business Schools and Programs (ACBSP) accredits business, accounting, and business-related programs at the associate, baccalaureate, master, and doctorate degree levels worldwide. ACBSP was recognized by the Council for Higher Education Accreditation (CHEA) in 2001 and again in 2011. Contact information for ACBSP is: 11520 West 119th Street, Overland Park, KS 66213; phone 913-339-9356; and website www.acbsp.org.

College of Education
State Board for Educator Certification (SBEC) granted A&M-Central Texas an Accreditation Status per the 2016 Texas Education Agency Notice and has been approved by the SBEC to prepare, train, and recommend candidates for certification based upon TAC §229.4(b-f). For more information contact the board by either phone: 512-936-9831 or the website: https://tea.texas.gov/About_TEA/Leadership/State_Board_for_Educator_Certification/. The Texas Education Agency is located at 1701 North Congress Avenue, Austin, TX 78701.

Council for Accreditation of Counseling and Related Educational Programs (CACREP) accredits programs in counseling and mental health programs. Contact information for CACREP is: 1001 North Fairfax Street, Suite 510, Alexandria, Virginia 22314; phone 703-535-5990.

Vision, Values, and Goals

Vision
Texas A&M University-Central Texas will achieve national recognition as an upper-level university, offering high quality and affordable undergraduate and graduate educational programs to address regional and statewide needs.

Mission
Texas A&M University-Central Texas is a public, upper-level university offering baccalaureate and graduate degrees important to the region and the state. It is committed to high quality, rigorous, and innovative
educational programs delivered in a variety of instructional modes to a diverse student population through exceptional teaching, service, and applied scholarship. With an emphasis on community engagement, the university employs emerging technology to enhance student learning and to nurture its partnerships with regional community colleges, the military presence in its region, and the community at large.

**Core Values**

**Excellence and Achievement** – We strive to continuously improve, innovate, and exceed expectations.

**Compassion** – We care about the feelings of others. When others are suffering, we empathize and offer help.

**Integrity** – We conduct ourselves in an ethical and respectful manner.

**Knowledge** – We provide educational experiences to encourage lifelong learning and intellectual curiosity.

**Diversity** – We respect and value both differences and similarities in our students, coworkers, and other stakeholders.

**Initiative** – We encourage the involvement and the contribution of each employee. We create a workplace where every employee can share a sense of ownership.

**Collaboration** – We develop and maintain partnerships to serve the needs of our students, faculty, staff, and external stakeholders.

**Goals**

**Imperative One: ACADEMIC EXCELLENCE**

1. Develop and offer outstanding undergraduate and graduate programs that promote intellectual and personal growth, enhance student success, and respond to regional and statewide needs.

2. Recruit, develop, and retain an outstanding faculty and staff that embody the core values of the university and support its mission.

3. Provide a research infrastructure that supports the growth of applied research, creative activities, and scholarship.

**Imperative Two: STUDENT SUCCESS**

1. Promote degree completion and graduation rates through outstanding curricular and co-curricular programs, and by enhancing support for scholastic achievement and student success.

2. Collaborate with community and technical college educational partners to align academic program transfer pathways.

**Imperative Three: COMMUNITY ENGAGEMENT**

1. Prepare educated and engaged citizens that contribute to their communities and enhance the vitality of the region.

2. Serve as a central hub for building regional partnerships and supporting community-based research to advance defined social and economic initiatives.

**Imperative Four: ACCESS & PATHWAY TO HIGHER EDUCATION**

1. Optimize the delivery of instruction and support services to support a highly mobile student population.

2. Provide a high-quality education at an affordable price to support access to higher education for all qualified students that meet admission standards.

**Imperative Five: DIVERSITY & INCLUSION**

1. Promote an inclusive, accessible, diverse, and equitable campus climate that supports all members of the university community.

2. Attract and retain a diverse and qualified student body consistent with our mission.

**University Notices**

**Student Rights and Responsibilities**

While no university may punish, forbid, heavily regulate, or restrict speech rights protected by the First Amendment, A&M-Central Texas expects that its students will engage with members of the university community in a courteous, respectful, dignified, and academic manner. Each student shall have the right to participate in all areas and activities of the university, free from any form of discrimination, including harassment, on the basis of race, color, national or ethnic origin, religion, sex, disability, age, sexual orientation, or veteran status in accordance with applicable federal and state laws. No university official or student, regardless of position or rank, shall violate these rights; any custom, tradition, or regulation in conflict will not be allowed to prevail. Students are expected at all times to recognize constituted authority, to conform to the ordinary rules of good conduct, to be truthful, to respect the rights of others, to protect private and public property, and to make the best of their time toward an education.

**Civil Rights Compliance**

A&M-Central Texas is committed to providing an educational and working environment that ensures equal opportunity to all members of the A&M-Central Texas community. A&M-Central Texas will strictly comply with all local, state, and federal civil rights laws and regulations prohibiting discrimination, sexual harassment, and/or related retaliation against employees, students, applicants for employment or admissions, and the public, regardless of race, color, sex, religion, national origin, age, disability, genetic information, veteran status, sexual orientation, or gender identity (A&M-Central Texas Rule 08.01.01 D1).

Inquiries regarding faculty and staff compliance with this commitment may be directed to the Office of Human Resources, Warrior Hall, Room 424, (254) 519-8015 or the Chief Compliance Officer, Founder’s Hall Room 325, (254) 519-5763, compliance@tamuct.edu.

**Notice of Civil Rights Compliance Procedures**

The Texas A&M University System (A&M System) Regulation Summary 08.01.01 states: A&M System will provide equal opportunity to all employees, students, applicants for employment and admission, and the public. This regulation provides guidance in complying with local, state and federal civil rights laws and regulations (laws) and related system policy. All complaints, appeals, or reports of discrimination received by A&M System will be taken seriously, appropriately reviewed, and addressed in accordance with this regulation. This regulation establishes...
systemwide standards for the receipt and processing of complaints, appeals, or reports ("complaints") of discrimination, harassment, and/or related retaliation based on a protected class ("discrimination"), including complaints made by employees, students, and/or third parties. A member also has a duty to respond to inappropriate employee or student conduct that does not constitute discrimination under this regulation.

Questions regarding equal access may be directed to the Office of Human Resources, Warrior Hall, Room 424, (254) 519-8015 or the Chief Compliance Officer, Founder’s Hall Room 325, (254) 519-5763, compliance@tamuct.edu.

Social Security Number Disclosure

Section 7(b) of the Privacy Act of 1974 (5 U.S. Code §552a) requires that when any federal, state, or local government agency requests an individual to disclose his/her social security number (SSN), that individual must also be advised whether that disclosure is mandatory or voluntary, by what statute or other authority the number is solicited, and for what purposes it will be used.

Accordingly, applicants for admission are advised that disclosure of the SSN is strongly recommended for admission as a student at A&M-Central Texas, in view of the practical administrative difficulties that would be encountered in maintaining adequate student records without continued use of the SSN. The SSN is used to verify the identity of the student; determine and record eligibility for student financial assistance, including loans, scholarships, grants, and allowances; determine and record eligibility for participation in Reserve Officers Training Corps programs; and other such related requirements that might arise. A&M-Central Texas has, for several years, consistently requested disclosure of the SSN on admissions application forms and other necessary student forms and documents. This is pursuant to statutes passed by the State of Texas and United States, 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.

FERPA Statement

Family Educational Rights and Privacy Act of 1974 - Official Notice to Students

Students’ Education Records Policy for Texas A&M University-Central Texas

The Family Educational Rights and Privacy Act of 1974, as Amended (FERPA), provides eligible students certain rights regarding their education records. An “eligible student” under FERPA is any student, regardless of their age, who attends or has attended a postsecondary institution. These rights are outlined in the Statement of Rights section below.

Statement of Rights

A&M-Central Texas encourages students to exercise all of their rights under FERPA (20 U.S.C. § 1232g). Operating under the premise that the educational process is a cooperative venture between a student and the university, we emphasize the following rights of eligible students:

1. The right to inspect and review, with certain limited exceptions, the student’s education records. A student must submit a written request to the appropriate A&M-Central Texas official identifying the record(s) the student wishes to inspect. The appropriate A&M-Central Texas official will, within 45 days of receipt of the request for access, make arrangements for the student to inspect the record(s);

2. The right to request the nondisclosure of personally identifiable information (PII) contained within the education records, except to the extent that FERPA authorizes disclosure without consent. One exception that permits disclosure without consent is disclosure to school officials with legitimate educational interests.
   a. A school official is a person or entity
      i. employed by the university or the university system in an administrative, supervisory, academic, research, or support staff position;
      ii. serving on a university governing body or duly authorized panel or committee; or
      iii. employed by or under contract to the university to perform a special task, function, or service for the university.
   b. A school official has a legitimate educational interest if the information requested is necessary for that official to:
      i. perform appropriate tasks that are specified in his/her position description or in the performance of regularly assigned duties by a lawful supervisor;
      ii. fulfill the terms of a contractual agreement;
      iii. perform a task related to a student’s education;
      iv. perform a task related to the discipline of a student; or
      v. provide a service or benefit relating to the student or student’s family, such as health care, financial aid, job placement, or former student-related activities.
   c. Disclosure to a school official having a legitimate educational interest does not constitute university authorization to transmit, share, or disclose any or all information received to third parties unless such disclosure is permitted or required by law.

3. The right to request the amendment of their education records if the student believes the record is inaccurate or misleading. The student should submit a written request to the appropriate A&M-Central Texas official clearly identifying the part of the record the student wants changed and specifying why it is inaccurate or misleading. If the university decides to comply, the record will be amended, and the student notified, in writing, that the record has been amended. If the university decides not to comply, the student will be notified in writing of the decision and will be advised of the right to request a hearing to challenge the information believed to be inaccurate or misleading;

4. The right to file a complaint with the U.S. Department of Education regarding alleged failures by the university to comply with the requirements of FERPA. The name of the office that administers FERPA is the Family Policy Compliance Office.

A student is entitled to all the rights and protections given students under FERPA; however, information in student records may be provided to parents/legal guardians without the written consent of the student if the eligible student is a financial dependent of his or her parents/legal guardians as defined under Section 152 of the Internal Revenue Code of 1986.

Directory Information

Under FERPA, A&M-Central Texas has established the following as directory information and may disclose the information without the student’s written consent: student’s name, address, email address, telephone number, dates of attendance, major field of study, classification, the most recent educational agency or institution attended, degrees, honors and awards received, weight and height of members of athletic teams, and participation in officially recognized activities and sports. Currently enrolled students wishing to withhold any or all directory information items may do so by completing the Information
Release Restrictions Form (https://www.tamuct.edu/registrar/docs/InformationReleaseRestrictionsForm.pdf) and submitting it to the Registrar’s Office. After this information is entered, a message block will appear on the monitor screen indicating that the student’s records are confidential. “Confidential” will also appear in the top left-hand corner of the screen when that student’s records are accessed.

Once information has been published in a printed publication, it cannot be removed from that publication.

Only currently enrolled students are eligible to restrict directory information. Once a student has left the university, he/she can no longer set restrictions on directory information at the university. If a student restricts his/her directory information and leaves the university, the restriction continues until the student removes it.

**Records Not Available Under FERPA**

Students shall have access to all of their education records as maintained by the university with the exception of the following:

1. A personal record kept by a university official which meets the following tests:
   a. it is in the personal possession of the individual who made it;
   b. information contained in it has never been revealed or made available to any other person except the maker’s temporary substitute.
2. An employment record which is used only in relation to a student’s employment by the university, except where an individual in attendance at the university is employed as a result of his or her status as a student.
3. Records relating to a student which are created or maintained by a physician, psychiatrist, psychologist, or other recognized professional or paraprofessional acting in his or her professional, or paraprofessional capacity or assisting in that capacity, which are used in connection with providing treatment to a student are not disclosed to anyone other than the individuals providing the treatment.
4. Financial records and statements of a student’s parents/legal guardians.
5. Confidential letters and statements of recommendation which were placed in the education records of a student prior to January 1, 1975.
6. Confidential letters and statements of recommendation which were placed in the education records of a student on or after January 1, 1975, if the student has waived his or her right to inspect and review the letters or statements.
7. Records concerning admissions to an academic component of the university which the student has never attended.

Certification for Dependency

Under provisions of FERPA, students enrolled in post-secondary educational institutions are deemed to “own” their education record from the first enrollment, regardless of the age of the student. Institutions may, but are not required to, grant access to certain non-directory information in a student’s education record if the student is claimed as a dependent on his or her parent’s/guardian’s federal income tax return. Generally, non-directory information will not be released to a parent or guardian unless a Certification of Dependency Form is completed and signed by both the parent(s)/guardian(s) and the student and is brought to the Registrar’s Office, Founder’s Hall Room 108 or mailed to the Registrar’s Office, 1001 Leadership Place, Killeen, TX, 76549. Until this form is filed, parents are not entitled to this information.

**Penalties for Violating FERPA**

The Family Policy Compliance Office reviews and investigates complaints of violations of FERPA. The penalty for violating FERPA is loss of all federal funding, including grants and financial aid.

If you witness or commit what you believe to be a possible FERPA violation, please notify the Compliance Officer immediately at (254) 519-5722. The Compliance Officer will investigate the matter and determine what action, if any, should be taken. If you have any questions about FERPA compliance or the release of student information, please contact the Registrar at records@tamuct.edu or (254) 501-5857.

**Hazing Law**

Texas Education Code (TEC) § 51.936(d) requires each university to publish in its university catalog a summary of the state hazing law. This requirement went into effect on May 30, 1995.

TEC § 51.936 requirement to publish a summary of Education Code Ch. 37, subchapter F. Hazing in the university catalog

The following is a summary of Chapter 37, subchapter F. (§§ 37.151-157) of the TEC, which prohibits hazing in Texas public or private high schools. TEC § 51.936 applies the prohibition on hazing as stated in Ch. 37 to institutions of higher education.

**Summary**

Hazing is a criminal violation under Texas law. A person may be found guilty of criminal conduct for hazing, encouraging hazing, permitting hazing, or having knowledge of the planning of hazing incidents and failing to report in writing his/her knowledge to the Associate Dean of Student Affairs.

Both failing to report hazing and hazing that does not result in serious bodily injury are Class B misdemeanors. Hazing that results in serious bodily injury is a Class A misdemeanor. Hazing resulting in a death is a state jail felony. An organization found guilty of hazing may be fined $5,000 to $10,000 or, for incident causing personal injury or property damage, an amount double the loss or expenses incurred because of the hazing incident.

It is not a defense to prosecution that the person hazed consented to the hazing activity.

Any person reporting a specific hazing incident to the Associate Dean of Student Affairs or other appropriate institutional official is immune from civil and criminal liability unless the report is in bad faith or malicious.

This state law does not limit or affect an educational institution’s right to enforce its own penalties against hazing.

The Education Code defines hazing as “any intentional, knowing, or reckless act occurring on or off the campus of an educational institution, by one person or acting with others, directed against a student, that endangers the mental or physical health or safety of a student for the purpose of pledging, being initiated into, affiliating with, holding office in, or maintaining membership in an organization.” The statute contains a list of conduct which constitutes hazing.
Title IX Compliance

A&M-Central Texas is committed to providing a learning, working, and living environment that promotes personal integrity, civility, and mutual respect in an environment free of sexual misconduct and discrimination. Sexual discrimination not only violates an individual's fundamental rights and personal dignity, it is also a violation of federal and state law. A&M-Central Texas considers sexual discrimination in all its forms to be a serious offense.

Title IX of the Education Amendments of 1972 prohibits discrimination based on sex in educational programs and activities that receive federal financial assistance. Sex discrimination is a behavior or action that denies or limits a person's ability to benefit from or fully participate in educational programs, activities, or employment opportunities. This refers to all forms of sex discrimination, including but not limited to: sexual harassment, sexual misconduct, sexual exploitation, sexual violence, failure to provide equal opportunity in educational programs and co-curricular programs, discrimination based on pregnancy, and employment discrimination.

To ensure compliance with Title IX and other federal and state civil rights laws, A&M-Central Texas has developed rules and procedures, followed by System policies that prohibit sex discrimination in all its forms.

Any member of the campus community or public who witnesses, is subjected to, or is informed about incidents of discrimination, sexual harassment, and/or related retaliation should promptly report the incident to the Title IX Coordinator, Deputy Title IX Coordinator, or his/her supervisor, provided they are not the alleged respondent.

Title IX Designated Officials

The Title IX Coordinator has primary responsibility for responding to allegations of discrimination and coordinating efforts for a prompt and equitable investigation and resolution, as well as monitoring the educational environment and workplace to stop, remediate, and prevent discrimination.

To assure university-wide compliance with federal and state law and university procedures, the Title IX Coordinator must be advised of all reported incidents of discrimination or sexual misconduct and their resolution, regardless of where the complaint is brought, investigated, or resolved.

Any member of the university community may report conduct that may constitute sexual harassment/misconduct under this policy. In addition, A&M-Central Texas faculty and staff are responsible for ensuring their work and educational environments are free from discrimination. When alleged or suspected discrimination is experienced by, observed by, or made known to an employee in the course and scope of his/her employment, the employee is responsible for promptly reporting that information. An employee’s failure to report alleged or suspected discrimination may result in disciplinary action, including dismissal.

Students who have questions or believe they have experienced discrimination, harassment, sexual violence, and/or related retaliation are encouraged to contact Paul York, Associate Dean of Student Affairs, at the Warrior Hall Building, Suite 105, Killeen, TX 76549. He may be contacted at pyork@tamuct.edu or at (254) 501-5909.

Faculty, staff, and visitors who have questions or believe they have experienced discrimination, harassment, sexual violence, and/or related retaliation are encouraged to contact Tina Flores-Navarez, Director of Human Resources, at the Warrior Hall Building, Suite 424, Killeen, TX 76549. She may be contacted at t.flores@tamuct.edu or at (254) 519-8015.

For reporting incidents of discrimination or questions regarding Title IX efforts on campus, you may contact Michelle Zornes, University Title IX Coordinator, at the Founder’s Hall Building, Suite 317, Killeen, TX 76549. She may be contacted at titleix@tamuct.edu or at (254) 519-5763.

University Police Department

The Texas A&M University-Central Texas University Police Department is service and safety oriented with broad enforcement powers, dedicated to providing an atmosphere in which the mission of the university is accomplished. Providing a safe and secure environment for A&M-Central Texas students, faculty, and staff is a top priority.

The police department operates 365 days a year, 24 hours a day, 7 days a week and provides a full range of law enforcement services, including criminal investigations, accident investigations, and emergency services. Representatives of the department are actively involved in instructional and educational outreach. University police have jurisdiction over all university properties. Jurisdiction is extended to off-campus locations in accordance with the Texas Education Code §51.203 and department policy. Our police officers are certified Texas peace officers as defined in article 2.12 of the Texas Code of Criminal Procedure and are authorized to carry firearms at all times within the state of Texas.

Emergency call boxes are strategically located throughout campus for students, faculty, and staff to summon assistance from the police department. In addition, during an emergency the police can be reached by dialing 911. All 911 calls will be answered by Bell County Communications Center and are routed to a university police officer. Callers should let the 911 operator know the emergency is located on the A&M-Central Texas campus.

Violations of university regulations are reported to the university’s chief judicial officer for further action. Individuals arrested for violations of law are transported to the Bell County Jail for booking.

The police department reports crime statistics to the U.S. Department of Justice and the Texas Department of Public Safety. Each report includes the number and types of crimes committed and is available on the web.

Each year, A&M-Central Texas prepares a report to comply with the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act. The report includes information regarding university rules, reported campus crime statistics, crime awareness and prevention, and important contact information. The most recent report is available on the A&M-Central Texas website at https://www.tamuct.edu/police/clery.html

Warrior Shield

Emergency Warning System for A&M-Central Texas staff and students. Warrior Shield is an emergency notification service that gives A&M Central-Texas the ability to communicate health and safety emergency information quickly via email, text message, and social media regardless of your location. All students are automatically enrolled in Warrior Shield through their myCT email account. Additional information on Warrior Shield is available at https://www.tamuct.edu/police/911cellular.html.

Office: University Police
Establishing domicile in Texas is presumed if, for at least 12 months prior to the census date of the semester in which he or she is to enroll, the person (or their parent if they are a dependent) resided in Texas and:

1. Owned and occupied real property in Texas (renting a home is not ownership); or
2. Owned and managed a “brick & mortar” business in Texas; or
3. Was gainfully employed, including self-employment, in Texas; or
4. Marriage for at least 12 months to a person who established a domicile in Texas per one of the above methods is also a basis for establishing domicile;
5. (Military only) The service member’s Home of Record with the military is Texas, or Leave and Earning Statements show the member has claimed Texas as their place of residence for the 12 consecutive months prior to enrollment.

Establishment of Domicile

Establishing domicile in Texas is presumed if, for at least 12 months prior to the census date of the semester in which he or she is to enroll, the person (or their parent if they are a dependent) resided in Texas and:

1. Graduates from a high school in Texas or receives a GED in Texas; and
2. Physically resides in Texas for the 12 consecutive months immediately prior to high school graduation; and
3. Physically resides in Texas for the 12 consecutive months immediately prior to the census date of the semester in which they enroll in a Texas public college or university.

Residency by Establishing and Maintaining Domicile

A person who:

1. Has established and maintained their domicile in Texas for the 12 consecutive months preceding the census date of the academic semester in which they enroll at A&M-Central Texas; and
2. Provides more than one-half of their own financial support, and is not eligible to be claimed as a dependent for income tax purposes.

2. Dependent Individuals

a. Whose parent has established and maintained their domicile in Texas for the 12 consecutive months preceding the census date of the academic semester in which they enroll at A&M-Central Texas.

3. Establishing Domicile

Residency through Prior Residency Classification and Continuous Enrollment

A person who:

1. Maintained continuous enrollment, or did not break enrollment for more than one regular semester.

4. Residency Reclassification

It is the student’s responsibility to ensure residency classification is accurate prior to registering for courses. If incorrect, it is also the student’s responsibility to ensure corrections are made before the census date of the applicable semester. Any applicant or student classified as a non-resident who wishes to be considered for reclassification as a resident must submit the Core Residency Questions. Along with the form, the applicant or student must submit supporting documentation that proves residency for tuition purposes. Oftentimes, an applicant or student will submit the Core Residency Questions and upon receipt, Recruitment & Undergraduate Admissions will request additional documentation specific to the way the Core Residency questions were answered.

For More Information please see the College for All Texans (http://www.collegeforalltexans.com/70bjectID=6D1466D9-AEA5-DE00-C12F3F75E7367718) website.

Documentation for Residency

The following is a list of documents that may provide support to a claim of physical residence in Texas:

1. Utility bills for the 12 consecutive months preceding the census date;
2. Cancelled checks that reflect a Texas residence for the 12 consecutive months preceding the census date;
3. A current credit report that documents the length and place of residence of the person or the dependent’s parent to be in Texas and the length of residence to be at least 12 consecutive months preceding the census date;
4. Texas voter registration card that was issued at least 12 months prior to the census date;
5. Texas voter registration card that was issued at least 12 months prior to the census date;
6. Texas high school transcript for full senior year immediately preceding the census date or a transcript from a Texas institution of higher education showing presence in the state for the 12 consecutive months preceding the census date.

The student has the burden of proof to show by clear and convincing evidence that domicile has been established and maintained.

1 Student visa holders are not eligible for this option for establishment of residency. An individual who is neither a US citizen, nor permanent resident must complete and submit the Residency Affidavit.

2 Students are not able to obtain residency through family members, sponsors, or individuals who are not their biological or adoptive parent, or court-appointed legal guardian, even if that person claims them on taxes or provides the majority of their financial need.
Employment intended to provide an income to a person or allow a person to avoid the expense of paying another person to perform the tasks (as in child care) that is sufficient to provide at least one-half of the individual’s tuition, fees and living expenses as determined in keeping with the institution’s student financial aid budget or that represents an average of at least 20 hours of employment per week. A person who is self-employed or who is living off his/her earnings may be considered gainfully employed for purposes of establishing residency, as may a person whose primary support is public assistance.

Non-Resident Tuition Waivers
Non-resident students who do not meet any of the above criteria for establishing residency for tuition purposes may be eligible to have the non-resident portion of the tuition waived, provided waiver eligibility requirements are satisfied. We’ve provided a list of the most common non-resident tuition waivers used at A&M-Central Texas. For additional information and non-resident waiver eligibility requirements, please visit www.collegeforalltexas.com (http://www.collegeforalltexas.com/apps/financialaid/tofa.cfm?Kind=W).

- Non-Resident Tuition Waiver For Active Military Personnel, Spouses and Dependents
- Non-Resident Tuition Waiver For Veterans, Spouses and Dependents
- Non-Resident Tuition Waiver For Family Intent To Make Texas Home

Please Note: It is the student’s responsibility to request a non-resident tuition waiver. All non-resident tuition waivers and requested documentation must be submitted prior to the beginning of the enrollment semester and no later than the official census date of the enrollment semester in order to be considered for the non-resident tuition waiver.

Expenses

Tuition and Mandatory Fee Rate Plans
A&M-Central Texas has a guaranteed tuition and mandatory fee plan (The Warrior Guarantee), which allows our students to effectively plan for the cost of their education. In addition, we offer a Variable Rate Plan. The Variable Rate Plan is effective for one academic year only.

Which Plan Should You Choose?
Incoming students will need to decide which plan best meets their financial needs. The following discussion provides more information about each of the plans to aid in the decision-making process. The specific dollar amounts for all plans can be found at the following link: https://www.tamuct.edu/business-office/tuition-fees.html

The Variable Rate Tuition Plan
Under the Variable Rate Tuition Plan, tuition and fee rates are established for an academic year and are subject to increase or decrease based on economic conditions, Board of Regents’ action, and/or legislative requirements. This plan is best suited for those students who plan to enroll and graduate within the same academic year.

The Warrior Guarantee
Students opting into The Warrior Guarantee will be assigned to a cohort that guarantees a defined tuition and fee rate that will not change for three consecutive years (nine consecutive semesters).

Students who exceed the specified number of consecutive semesters allowed for degree completion for a specific cohort will be assessed tuition and fees at the approved rate for a similar cohort in the subsequent academic year.

Note: Current students already enrolled in The Warrior Guarantee cohort based on their classification will not see any changes to their plan.

All undergraduate students, regardless of residency, are eligible for our bonus tuition option, which caps tuition charges at 12 semester credit hours (SCH). In other words, if a student chooses to take more than 12 SCH in a semester, the charge for tuition and mandatory fees will equal the charge for 12 SCH. This is our “Bachelor’s Bonus,” allowing you to take more hours for less!

For further information on the estimated cost of tuition & fees, please visit: https://www.tamuct.edu/business-office/tuition-fees.html

Tuition and Fees
Below is the chart for the Undergraduate Resident - Guaranteed tuition rates and fee (locked for three years) schedule for students as of the publication date: (all fees are subject to change without notice). For the most accurate total tuition and mandatory fees inquire with the Business Office (https://www.tamuct.edu/business-office/) on campus.

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<th>Student Health Fee</th>
<th>Recreational Sports Fee</th>
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<td>3,212.64</td>
<td>250.00</td>
<td>35.00</td>
<td>100.00</td>
<td>3,597.64</td>
</tr>
<tr>
<td>21</td>
<td>3,212.64</td>
<td>250.00</td>
<td>35.00</td>
<td>100.00</td>
<td>3,597.64</td>
</tr>
<tr>
<td>22</td>
<td>3,212.64</td>
<td>250.00</td>
<td>35.00</td>
<td>100.00</td>
<td>3,597.64</td>
</tr>
</tbody>
</table>
NOTE: College of Business Administration has an additional $22.50 per semester credit hour tuition charge.
    Mechanical Engineering Technology Program has an additional $38.00 per semester credit hour tuition charge.

Additional Fees:

<table>
<thead>
<tr>
<th>Fee Type</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installment Plan</td>
<td>$20.00</td>
</tr>
<tr>
<td>Late Registration Fee</td>
<td>$25.00</td>
</tr>
<tr>
<td>Reinstatement Fee</td>
<td>$100.00</td>
</tr>
<tr>
<td>Graduation Application Fee</td>
<td>$50.00</td>
</tr>
<tr>
<td>Late Graduation Application Fee</td>
<td>$20.00</td>
</tr>
<tr>
<td>Laboratory Fees</td>
<td>$2.00 - $30.00</td>
</tr>
<tr>
<td>Certificate Fee</td>
<td>$25.00 - $100.00</td>
</tr>
<tr>
<td>Certification Fee</td>
<td>$25.00 - $150.00</td>
</tr>
<tr>
<td>Internship Fee</td>
<td>$100.00 - $3,000.00</td>
</tr>
<tr>
<td>Parking Fee</td>
<td>$30.00 Fall/Spring; $10.00 Summer</td>
</tr>
<tr>
<td>Testing Fee</td>
<td>$15.00</td>
</tr>
<tr>
<td>Distance Learning Fee</td>
<td>$80.00 per Semester credit hour</td>
</tr>
<tr>
<td>International Program Fee</td>
<td>$40.00 per semester (International Students only)</td>
</tr>
<tr>
<td>Course-Related Fee</td>
<td>$5.00 - $175.00 (Field Placement, etc.)</td>
</tr>
<tr>
<td>Repeated Course Fee</td>
<td>$100.00 per semester credit hour</td>
</tr>
<tr>
<td>Excessive Hours Fee</td>
<td>$100.00 per semester credit hour</td>
</tr>
<tr>
<td>Materials Fee</td>
<td>Based upon course requirements</td>
</tr>
</tbody>
</table>

Per section 54.051(d) of the Texas Education Code, these costs are contingent upon rates calculated by the Higher Education Coordinating Board for nonresident students enrolled in Texas public universities. The actual rate will vary pending this calculation.

Explanation of Fees

The following expenses are required for all students. Tuition and Student Services Fee are included in The Warrior Guarantee. Other fees will be assessed based on specific circumstances.

Tuition

Tuition for undergraduate and graduate students varies by semester credit hour (SCH) based on the tuition and fee plan selected by the student. See the “Expenses” section for more information about the available tuition and fee plans. Tuition also varies per SCH based on residency. See “Determination of Residence for Tuition Purposes” in this section for more information.

Student Services Fee

This fee supports student services at A&M-Central Texas. The maximum amount charged per semester is $250.00.

Student Health (Center) Fee

The amount charged per each semester is $35.00 fall and spring and $25.00 for summer.

Recreational Sports Fee

The Recreational sports fee funds recreational and wellness initiatives and programs for students. The fee of $50 for summer and $100 each for spring and fall is charged to all students in Bell, Milam, Williamson, McLennan, Coryell, Falls, Lampasas, and Burnet Counties.

Certificate Fee

This is an application fee for students taking certification programs through graduate school.

Texas Educator Certification Fee

The certification fee covers the required services for admission and compilation of your Texas Candidate Certification Record and to verify your credentials in pursuit of a Texas Educator Certification.

TEA Fee

Texas Administrative Code § 229.9 (7)(A) requires candidates who accept admission into an Educator Preparation Program pay a fee that will be sent to the Texas Education Agency (TEA). This fee is directly billed to the student once acceptance documentation has been received.

Course Fees

These fees are charged to cover the costs of materials and services directly associated with selected classroom or laboratory activities.

Distance Learning Fee

The fee of $80 per SCH is assessed for all online courses to provide web-based student services support.

Excessive Hours Fee

A fee of $100 per excess SCH is charged for students with excessive hours towards a degree program. Reference Texas Education Code § 54.014, which provides a limit to the number of hours an undergraduate Texas resident may attempt while paying in-state tuition.

Field Experience Fee

A fee per course is charged to all students who register for a student teaching, internship, field placement, or cooperative education course. This fee is used for costs directly associated with these courses.

Graduation Application Fee

This fee is due at the time the graduation application is submitted. This fee is used for costs directly related to graduation (diplomas, etc.).

Graduation Application Late Fee

Students who do not apply for graduation by the appropriate deadline will be assessed a $20 late fee.

Installment Payment Plan Fee

Students who sign up for the installment payment plan will be assessed a $20 processing fee.

International Student Program Fee

This is a fee assessed only to international students at a rate of $40 per semester, which funds expenses directly associated with the International Education Program.

International Health Insurance Fee

The Texas A&M University System requires all international students entering the U.S. on a F-1 student visa to be covered under the Texas A&M University System Student Health Insurance Plan (SSHIP) or have equivalent insurance coverage that meets the waiver criteria at http://assets.system.tamus.edu/files/benefits/pdf/studentinsurance/waiver%20guidelines.pdf. The System Student Health Insurance Regulation is located at http://policies.tamus.edu/26-99-01.pdf.
Internship Fee for Teacher Certification
The internship fee provides the candidate a Field Supervisor and Mentor, as required by Texas Education Agency, in the pursuit of obtaining a Teacher Certification. This fee is required every semester the candidate is enrolled in the Internship I or Internship II course.

Laboratory Fee
A fee for each laboratory course may be charged for materials and supplies.

Late Registration Fee
Students who do not register or make initial payments by the appropriate deadline will pay a $25 late fee.

Late Payment Fee
Students who make an installment payment after the due date will be charged a late payment fee of $20. Students who are delinquent more than five days may be prohibited from registering for classes and blocked from all university services.

Materials Fee
A fee may be added for specialized courses requiring supplies to supplement instructional activities.

Parking Fee
Students who wish to park a vehicle or motorcycle on A&M-Central Texas property must pay a parking fee of $30 for each regular semester and $10 for each summer semester.

Repeated Courses Fee (3-Peat)
An additional course fee will be charged at a rate of $100 per SCH to those students who attempt 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).

Testing Fee
A testing fee of $15 for first-time students will be assessed to support the Testing Center and other university testing services. It is charged at the time of first enrollment and covers all institutional testing in the Testing Center while the student is enrolled.

Reinstatement Fee
A student who is dropped from the rolls of the university will be charged a fee of $100 for reinstatement of their status as student.

Transcript Fee
A fee of $3.00 is charged for transcript processing. The first two transcripts are free.

Financial Obligation for Graduating Students
According to Texas Education Code 54.007 (d), all financial obligations to the university must be paid by the end of the semester. Failure to settle all financial obligations will result in withholding a student’s diploma at graduation. Additionally, a hold will be placed on the student’s account which will prohibit registration in subsequent semesters and receipt of official transcripts.

Chapter 54.007 (d) of the Texas Education Code states “A student who fails to make payment prior to the end of the semester may be denied credit for the work done that semester.

Payment of Fees
All the aforementioned fees must be paid by the designated date stated on a student’s bill. Student account information is available through Warrior Bill Pay via WarriorWeb, which features 24/7 access, E-bills, electronic refunding, online payment plan enrollment, and authorized user access. Payment due dates are also displayed in Warrior Bill Pay.

The following options are available for fee payment in fall, spring and summer semesters:

• OPTION 1. Payment in full by the designated date.
• OPTION 2. Payment in four installments as follows: (fall and spring only)
  Installment 1: 25% of charges by designated date;
  Installment 2: 25% of charges by designated date;
  Installment 3: 25% of charges by designated date;
  Installment 4: 25% of charges by designated date;
• OPTION 3. Payment in three installments as follows: (summer only)
  Installment 1: 34% of charges by designated date;
  Installment 2: 33% of charges by designated date;
  Installment 3: 33% of charges by designated date;

Each student who elects option 2 and 3 must enroll in the payment plan through Warrior Bill Pay, via WarriorWeb. An installment agreement must be on file in the Business Office. Students who fail to make tuition and fee payments by the due date may be prohibited from registering for classes for succeeding semesters until the payment is made and will be assessed a $20.00 late fee per installment. For minimesters, options 2 and 3, are not available, payment in full is due by the designated date.

Notice Concerning Check Payments
If a check accepted by the university is returned unpaid by the bank (including electronic check) on which it is drawn, the person presenting it will be required to pay a penalty of $30. If the check is not redeemed within 20 days after the date of the first notice, the student may be dropped from the rolls of the university and the check turned over to the County Attorney for collection.

Financial Obligation for Graduating Students
According to Texas Education Code 54.007 (d), all financial obligations to the university must be paid by the end of the semester. Failure to settle all financial obligations will result in withholding a student’s diploma at graduation. Additionally, a hold will be placed on the student’s account which will prohibit registration in subsequent semesters and receipt of official transcripts.

Chapter 54.007 (d) of the Texas Education Code states “A student who fails to make payment prior to the end of the semester may be denied credit for the work done that semester.

Refunds
Students who pay tuition and fees in full and withdraw from the university will receive a refund based on the refund schedule below. Students paying on an installment basis who withdraw from the university will be
required to pay the balance of fees due in accordance with this schedule. The refund schedule is as follows:

**Session 10 weeks or greater**

<table>
<thead>
<tr>
<th>Prior to 1st class day</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st, 2nd, 3rd, 4th, 5th class day</td>
<td>80%</td>
</tr>
<tr>
<td>6th, 7th 8th, 9th 10th class day</td>
<td>70%</td>
</tr>
<tr>
<td>11th, 12th, 13th, 14th, 15th class day</td>
<td>50%</td>
</tr>
<tr>
<td>16th, 17th 18th, 19th 20th class day</td>
<td>25%</td>
</tr>
<tr>
<td>After the 20th class day</td>
<td>0%</td>
</tr>
</tbody>
</table>

**Session greater than 5 weeks and less than 10 weeks**

<table>
<thead>
<tr>
<th>Prior to 1st class day</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st, 2nd, 3rd, class day</td>
<td>80%</td>
</tr>
<tr>
<td>4th, 5th, 6th class day</td>
<td>50%</td>
</tr>
<tr>
<td>After the 6th class day</td>
<td>0%</td>
</tr>
</tbody>
</table>

**Sessions 5 weeks or less**

<table>
<thead>
<tr>
<th>Prior to 1st class day</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st class day</td>
<td>80%</td>
</tr>
<tr>
<td>2nd class day</td>
<td>50%</td>
</tr>
<tr>
<td>After the 2nd class day</td>
<td>0%</td>
</tr>
</tbody>
</table>

**Withdrawing from All Courses at the University**

The effective withdrawal date is the date the withdrawal is reported to and recorded in the Registrar's Office. This is the date used to calculate refunds.

**Dropped Classes**

The effective drop date is the date that a course drop is recorded in the Registrar's Office. 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. 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:

<table>
<thead>
<tr>
<th>Length of Class in Weeks</th>
<th>Official Census Date</th>
<th>Last Date to Drop or Withdraw with a &quot;Q&quot; or &quot;W&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 weeks</td>
<td>Second class day</td>
<td>Friday of second week</td>
</tr>
<tr>
<td>4 or 5 weeks</td>
<td>Fourth class day</td>
<td>Friday of third week</td>
</tr>
<tr>
<td>6, 7, or 8 weeks</td>
<td>Sixth class day</td>
<td>Friday of sixth week</td>
</tr>
<tr>
<td>9, 10, or 11 weeks</td>
<td>Seventh class day</td>
<td>Friday of seventh week</td>
</tr>
<tr>
<td>12, 13, or 14 weeks</td>
<td>Ninth class day</td>
<td>Friday of tenth week</td>
</tr>
<tr>
<td>15 - 16 weeks</td>
<td>Twelfth class day</td>
<td>Friday of eleventh week</td>
</tr>
</tbody>
</table>

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, then Thursday of that week is considered the fourth class day for all classes.

The A&M-Central Texas' refund policy is established in accordance with the mandates of the State of Texas.
Toward Excellence, Access, and Success Grant (TEXAS Grant)
The TEXAS Grant is gift aid awarded to students who are working on their first undergraduate degree who meet state mandated eligibility requirements. Information on eligibility can be located online at College for All Texans (http://www.collegeforalltexas.com/apps/financialaid/tofa2.cfm?ID=458).

Texas Public Education Grant (TPEG)
Texas resident and non-resident undergraduate students may be eligible for a grant each semester of the academic year based upon the budgetary funding of the grant. Graduate students may also be eligible for the grant for each semester of the academic year based upon the budgetary funding of the grant. Students must be enrolled at least half-time and awards are prorated based on enrollment. No individual award may be more than the student’s financial need. Each institution may set its own maximum award amounts. Your eligibility for this program is determined by the financial aid office at the university. Funds may not be immediately available to you at the beginning of the semester. Refer to Texas Education Code, 56.031 and Texas Administration Code Title 19, Part 1, Chapter 22, Subchapter D.

Warrior Tuition Grant
Texas resident undergraduate and graduate students may be eligible for the grant each semester of the academic year. Students must be enrolled at least half-time and awards are prorated based on enrollment.

Loans
Federal, state, and institutional student loans are borrowed money you must repay with interest.

Federal Direct Student Loans
As an undergraduate student loan borrower, you may be awarded a subsidized (need-based) or unsubsidized (non-need-based) loan depending on your financial need. As a graduate student loan borrower, you may only be awarded an unsubsidized loan (non-need-based) loan. If you are awarded a subsidized loan (i.e., an undergraduate student), interest will not accrue on your loan while you are enrolled at least half-time. If you are awarded an unsubsidized loan, you will be responsible for the interest while in school. You will receive quarterly interest statements on your unsubsidized loan from your servicer. It is recommended that you pay this interest every quarter. If you do not, the interest will be added to your loan amount upon entering repayment, which will result in increasing costs when repaying your loans.

Federal Direct Parent (PLUS) Loans
Parents of dependent undergraduate students may be offered a PLUS loan. These unsubsidized loans are charged interest during all periods of enrollment.

PLUS loans are available to help pay for an undergraduate, dependent student’s educational expenses up to the cost of attendance less all other financial assistance expenses. Parents must satisfy specific eligibility requirements including not having an adverse credit history at the time of loan application.

Emergency Tuition and Fee Loan
Emergency Tuition and Fee Loans are made available to students that are unable to pay their first installment payment at A&M-Central Texas (only tuition and fee charges are covered) during the fall or spring semester(s), or full balance during summer semesters. Applications for all Emergency Tuition and Fee Loans are processed through the Office of Student Financial Assistance. Distribution and repayment of funds is made through the Business Office.

• In the fall and spring semester(s), a student may borrow up to 25% of their total tuition and fee charges. Students must also sign up for an installment plan to complete their semester registration. In the summer semester, a student may borrow up to the amount of their tuition and fees.
• An origination fee of 1.25% will be assessed on the amount of the loan. Emergency Tuition and Fee Loans and applicable fees must be repaid within the prescribed repayment period.
• Deadline for processing Emergency Tuition and Fee Loans will be 30 days before all loans are due.

Book Loans
Students may borrow up to $700 to purchase books at the Warrior Bookstore only. A voucher will be issued which the student will present to the Warrior Bookstore. The purchase amount, up to $700, will be recorded on the voucher; this amount becomes the principal due on the loan. A $15 service charge will be assessed. Loans must be repaid by the established due date. Loans not paid on time will be assessed a $20 late fee.

Work Opportunities
Eligible students may participate in either the Federal Work Study program, funded jointly by the Department of Education and the university, or the Texas College Work Study Program, funded jointly by the State of Texas and the university. Students must show financial need and meet established eligibility standards. Funds are awarded on a first-come, first-served basis. Current work study employment does not guarantee a student work-study position for the following academic year.

Other Assistance
The Office of Student Financial Assistance assists students with the use of a variety of educational benefits from a variety of sources. These sources may include employer-based programs, state exemption, and waiver programs. Students should contact the Office of Student Financial Assistance to determine how they may utilize their available benefits.

Prepaid Tuition and College Savings Plans
Prepaid tuition plans allow families to prepay future college tuition and fees. The two most common prepaid plans used at A&M-Central Texas are:

• Texas Guaranteed Tuition Plan (formerly the Texas Tomorrow Fund)
• Texas Tuition Promise Fund

Scholarships
A&M-Central Texas offers a variety of merit and need-based scholarship opportunities to support students in pursuit of their education. With the support of the A&M-Central Texas Foundation and generous donors, the scholarship program at A&M-Central Texas continues to grow. Scholarships are awarded for academic ability and achievement, demonstrated leadership, extracurricular activities, financial need, and other criteria as defined by specific scholarship programs.
Scholarship Deadlines
After you have been admitted to A&M-Central Texas, you may apply for scholarships by completing a general scholarship application via the A&M-Central Texas Scholarship Portal. Please see below for the scholarship application submission deadlines associated with each academic semester:

- Fall Semester - Opens June 15  Closes July 15
- Spring Semester Deadline - Opens November 2  Closes December 2
- Summer Semester Deadline - Opens March 22  Closes April 22

For more information on possible scholarship opportunities please visit our Scholarship Opportunities Web page at https://www.tamuct.edu/financial-aid/scholarships.html.

Scholarships Listing
B.M. Beck Endowed Scholarship
Blue Coats Scholarship
Bob & Karin Allemann Endowed Scholarship
Cadet Russell Streightiff Army ROTC Endowed Scholarship
Centex Scholars Scholarship
Central Texas Kumquat Scholarship
Chaplains Cohort Scholarship
College of Arts & Science Academic Scholarship
College of Business Administration Academic Scholarship
College of Business Need Based Scholarship
College of Education & Psychology Scholarship
Congressman Chet & Lea Ann Edwards Endowed Scholarship
Dr. Michael and Lou Ann McKinney Scholarship
Eagle Warrior Scholarship
Farm Credit – College of Business Scholarship
Four Winds General Endowed Scholarship
Frank W & Sue Mayborn Endowed Scholarship
Friends of TAMUCT Endowed Scholarship
FWIS Ruth Hooper Memorial Endowed Scholarship
FWIS Warrior’s Endowed Scholarship
General Promise Scholarship
Greater Texas Foundation Removing Educational Barriers Scholarship
Hal Myrah Memorial Endowed Scholarship
Jimmie Don and Marie Aycock Scholarship
John & Elizabeth Cheatham Endowed Scholarship
John R. Ingram Jr. Scholarship
Karola Anthony Endowed Scholarship
Lieutenant General H.G. "Pete" Taylor Endowed Scholarship
Life’s Next Chapter Scholarship
Marcis & Associates Scholarship
Mary Yeaman Memorial Endowed Scholarship
MBA Cohort Scholarship
McLane Family Scholarship
Military Service Scholarship
Phi Theta Kappa
Presidential Need-Based Scholarship
Richard and Marvel Love Scholarship
ROTC Progression Cadet Scholarship
ROTC Scholarships
Subhani Foundation Scholarship
TAMUCT Achieve Scholarship
Textbook Scholarship
The Greater Texas Foundation Endowed Scholarship
The Knight Scholarship
The Lotte Vernon & Company, P.C., CPAs Accounting Scholarship
The Stephen A. and Mary L. Hanik Scholarship
Tolly & Florence Moore Endowed Scholarship
Warrior Corps Merit Scholar Scholarship
Warrior Legends Scholarship
Wolf Warrior Scholarship

Consortium Agreement
An A&M-Central Texas student concurrently enrolled at an eligible host institution may complete a consortium agreement for financial aid purposes. Under a consortium agreement, a student’s financial aid eligibility will be based on the combined enrollment between A&M-Central Texas and the participating host institution.

Eligibility requirements:

- Must be a degree-seeking student at A&M-Central Texas, enrolled in at least one course at A&M-Central Texas;
- Must be enrolled in at least one course at an eligible host institution;
- Semester credit hours at host institution must meet outstanding A&M-Central Texas degree requirements;
- Semester credit hours at the host institution must coincide with the academic semester at A&M-Central Texas (i.e., fall credit hours must begin and end within the months of August and December and spring credit hours must begin and end within the months of January and May).

Satisfactory Academic Progress (SAP) Components
There are three components to SAP. Failure to comply with any component may result in a loss of aid eligibility. The three components are as follows:

1. Minimum Cumulative Grade Point Average (GPA)
   - Undergraduate Students: 2.0
   - Graduate Students: 3.0

2. Completion Rate (Deficit Hours)
   - While students are expected to enroll full-time to be eligible for financial aid, each student must successfully complete at least 67% of all credit hours attempted.
   - This percentage includes all institutional and transfer credit hours, regardless of whether or not financial aid was received.
   - Grades of W, F, I, Q, WF, U, and grade exclusions are not considered to be adequate grades for completion.

3. Maximum Hours (Excessive Hours)
   - Students are expected to complete their degree pursuits within a maximum number of hours, including transfer hours earned in addition to institutionally attempted hours.
   - For students seeking their first bachelor’s or master’s degree, the maximum number of credit hours (total attempted hours) is limited to 150% of the published degree program length and includes all hours attempted (including repeats and withdrawals) at any institution of higher education and any hours accepted in transfer—even if financial aid was not received. Evaluated credit will also be included in the total attempted hours once articulated by the Recruitment & Undergraduate Admissions Office.

*NOTE** Credit hours are cumulative. Students obtaining more than the maximum hours (e.g., with a change in major) may reach
this maximum time frame before completing their course of study and may need to appeal the time frame eligibility.

Review Policy
The Office of Student Financial Assistance will review the above minimum standards of academic progress at the end of every semester to determine each applicant's eligibility for aid consideration for the upcoming year (summer, fall, spring). If it is determined that the student does not meet the requirements, they are ineligible to receive financial aid and will be notified accordingly.

Financial Aid Warning
Students who fail to meet the SAP standards of a sufficient cumulative GPA (2.0 GPA for undergraduate students and 3.0 GPA for graduate students) and a 67% completion rate will be placed on a warning status for financial aid. The student will remain eligible for financial aid for one semester while on a warning status.

First-time transfer students who fail to meet Financial Aid SAP requirements at the end of their initial semester are not eligible for Financial Aid Warning.

Financial Aid Suspension
Students who fail to meet the SAP standards of a sufficient cumulative GPA (2.0 GPA for undergraduate students and 3.0 GPA for graduate students) and a 67% completion rate after a semester on financial aid warning status are placed on financial aid suspension and immediately lose eligibility for financial aid.

Maximum Time Frame Suspension
Students who fail to meet the maximum time frame standards are placed on an excessive hour suspension and immediately lose financial aid eligibility. There is no provision for a warning period if students exceed the maximum time frame.

SAP Appeal
Students placed on a financial aid suspension will be given the opportunity to appeal this suspension to have their financial aid reinstated. Students are limited to two appeals as an undergraduate student and two as a graduate student.

Return of Funds Due to Withdrawal
A student who withdraws from the university after receiving financial assistance may be required to repay all or part of the awarded aid. A withdrawal form must be initiated in the Registrar's Office before the last day for withdrawals, which is posted on the university calendar. A student is not officially withdrawn until this form is completed with the approval of each appropriate university office and returned to the Registrar's Office. Please note that students receiving all "F"s, incompletes, or a combination of the two may be considered withdrawn. In addition, the definition of a withdrawal related to financial assistance may differ from the definition used by the Registrar's Office when a student is enrolled in multiple sessions in a single semester.

As required by federal regulations, the Office of Student Financial Assistance determines if a student must repay all or part of the aid awarded. The calculation of repayment is made at the time of the withdrawal by determining the amount of aid the student was awarded, the amount of awarded aid the student earned, and the amount of awarded aid the student did not earn. Unearned aid must be returned to the aid program(s). The institution returns Title IV funds no later than 30 days after the determination of a student's withdrawal date. If a student earned more aid than was disbursed, the student may be entitled to a disbursement after their withdrawal. During the withdrawal process, students are encouraged to speak with a representative from the Office of Student Financial Assistance.

The policy governing the return of funds due to withdrawal may be modified at any time, without prior notice, in order to comply with state and federal guidelines.

Tuition and Student Fee Exemptions
Texas currently maintains a variety of programs aimed at exempting tuition, fees, and other expenses related to attending public colleges or universities. These exemption programs are targeted to specific populations that the Texas Legislature has identified as warranting special consideration related to paying for higher education costs.

All exemptions are processed through the Office of Student Financial Assistance. Claims for exemption from any charges must be supported by evidence sufficient to enable the Office of Student Financial Assistance to verify the student's exempt status and determine the duration of the exemption and the charges to which it is applicable. Each section below refers to information found in the corresponding Texas Education Code (TEC).

Blind/Deaf (TEC §54.364)

<table>
<thead>
<tr>
<th>Tuition</th>
<th>Yes</th>
<th>Student Service Fees</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Mandatory Fees</td>
<td>Yes</td>
<td>Course Specific Lab Fees</td>
<td>Yes</td>
</tr>
<tr>
<td>Breakage Deposit</td>
<td>Yes</td>
<td>Testing Fee</td>
<td>Yes</td>
</tr>
<tr>
<td>Parking</td>
<td>Yes</td>
<td>Room Board</td>
<td>No</td>
</tr>
<tr>
<td>Books</td>
<td>No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Children of POWs and MIAs (TEC § 54.343)

<table>
<thead>
<tr>
<th>Tuition</th>
<th>Yes</th>
<th>Student Service Fees</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Mandatory Fees</td>
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<td>Course Specific Lab Fees</td>
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<td>Books</td>
<td>No</td>
<td></td>
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</tr>
</tbody>
</table>

Dependents of Disabled Firefighters and Police (TEC § 54.351)

<table>
<thead>
<tr>
<th>Tuition</th>
<th>Yes</th>
<th>Student Service Fees</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Mandatory Fees</td>
<td>Yes</td>
<td>Course Specific Lab Fees</td>
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</tr>
<tr>
<td>Breakage Deposit</td>
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<td>Testing Fee</td>
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<tr>
<td>Parking</td>
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<td>Books</td>
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</tr>
<tr>
<td>Scholarship Type</td>
<td>Tuition</td>
<td>Student Service Fees</td>
<td>Other Mandatory Fees</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------------</td>
<td>---------</td>
<td>----------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td><strong>Hazlewood-Texas Veterans Dependent Children and Spouse of Texas Veterans (TEC § 54.341)</strong></td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Foster Care Children (TEC §54.366)</strong></td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Adopted Students Formerly in Foster or Other Residential Care (TEC §54.367)</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td><strong>High School Valedictorian (TEC §54.301)</strong></td>
<td>Yes</td>
<td>No</td>
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<tr>
<td><strong>Senior Citizen (6 SCH Limit) (TEC §54.365)</strong></td>
<td>Yes</td>
<td>No</td>
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</tr>
<tr>
<td><strong>Good Neighbor Scholarship Program (TEC §54.331)</strong></td>
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<tr>
<td><strong>Nursing Faculty/Staff (TEC §54.355)</strong></td>
<td>Yes</td>
<td>No</td>
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<tr>
<td><strong>Clinical Preceptor (Limit $500) (TEC §54.356)</strong></td>
<td>Yes</td>
<td>No</td>
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<tr>
<td><strong>Firefighters Taking Fire Science Curriculum (TEC §54.353)</strong></td>
<td>Yes</td>
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</tr>
</tbody>
</table>

Awarded yearly to the highest-ranking graduate of any accredited high school in Texas. Recipients are exempt from tuition payment for the two long semesters of their freshman year, providing that they attend the same school for both semesters. Eligible students should send or bring their certificate to the Office of Student Financial Assistance prior to registration.
Peace Officers Enrolled in Law Enforcement or Criminal Justice Courses (TEC §54.3531)

<table>
<thead>
<tr>
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<th>Other Mandatory Fees</th>
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</tr>
<tr>
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<td>Room Board</td>
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<tr>
<td>Books</td>
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Peace Officers Disabled in the Line of Duty (TEC §54.352)

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<tr>
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<tbody>
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<td>Course Specific Lab Fees</td>
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</tr>
<tr>
<td>Parking</td>
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<td>Room Board</td>
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</tr>
<tr>
<td>Books</td>
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Educational Aide Exemption (TEC §54.363)

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</tr>
<tr>
<td>Books</td>
<td>No</td>
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Military and Veteran Services

Ted and Diane Connell Military and Veteran Services Center

The Ted and Diane Connell Military and Veteran Services Center provides assistance to student veterans, service members, and their families in the utilization of U.S. Department of Veteran Affairs (VA) education benefits and military tuition assistance, military transcripts evaluation (p. 26), and a successful transition to student life.

Staff are available to answer questions about veterans’ education benefits and military tuition assistance, military credit evaluation (p. 26), as well as to certify enrollments and monitor students’ degree plans and academic progress. However, the VA Regional Processing Office is the final authority on disbursement of funds. In addition, some chapters of veterans’ education benefits may require the student to verify his/her enrollment status in order for the VA to release his/her monthly payments. Please note that the last day of the month in question is the earliest day that enrollment for that month may be verified.

A&M-Central Texas School Certifying Officials are not VA employees; they act as liaisons between the university and the VA. The School Certifying Officials work to ensure that the regulations of the VA are satisfied, as well as the policies of the university; however, the School Certifying Officials are not authorized to make judgments regarding the status of a student’s VA education benefits.

Please refer to the VA Website (http://benefits.va.gov/gibill/) for additional information regarding education benefits or the VetSuccess on Campus (VSOC) program counselor.

The Military and Veteran Services Center stands ready to facilitate the transition from military life into academics. Services include:

- Information and support related to the Post 9/11 GI Bill®
- Montgomery GI Bill®
- Dependents Educational Assistance (DEA) program
- Reserve Educational Assistance Program (REAP)
- Vocational Rehabilitation
- Montgomery GI Bill-Reserve®
- Military Credit Evaluations (p. 26)
- Military Tuition Assistance
- Hazlewood Act - Texas Veterans Commission

Please contact (254) 519-5423 for information concerning VA resources and benefits. Questions and inquiries (email) may also be sent to va@tamuct.edu.

VetSuccess on Campus

The VSOC Program is a collaborative effort between A&M-Central Texas and the VA with the purpose of providing a supportive, on-campus environment where veteran students may gather to obtain assistance and peer support. The goal of the program is to help veterans transition to college life and successfully complete their educational programs. The VA has placed a full-time, experienced vocational counselor on the A&M-Central Texas campus. The counselor serves as a “one-stop liaison” for veterans, active duty military, and their eligible family members. A&M-Central Texas is one of the original eight schools in the nation to have an on-campus counselor from the VA.

Your VetSuccess Counselor can assist you with:

- Information on VA educational benefits, to include the Montgomery GI Bill® (Chapter 30), Post 9/11 GI Bill® (Chapter 33), and other VA and non-VA educational benefits
- Information, guidance, and support while using your VA educational benefits
- Accessing, understanding, and applying for VA benefits, to include vocational rehabilitation and employment, disability compensation, life insurance, home loan guaranty, and other benefits and services
- Transition support services
- Vocational exploration and career counseling services
- Assistance with electing healthcare benefits through the Veterans Health Administration (VHA)
- Information and referrals for VA medical and mental health services
- Referrals for readjustment counseling services for eligible veterans and their family members
- Job placement assistance and coordination with local Disabled Veteran’s Outreach Program (DVOP) specialists and Local Veterans Employment Representatives (LVER)
- Referrals to on-campus, community, and VA resources to ensure academic success

GI Bill® is a registered trademark of the U.S. Department of Veterans Affairs. More information about education benefits offered by VA...

**Cancellations and/or refunds for veterans must follow the current Veteran Administration requirements. Contact the Veterans Service Center for assistance.**

**Guidelines for Active-duty Army, National Guard and Army Reserve students (GOARMYED) Only**

All eligible active duty soldiers, National Guard and Army Reserve students must complete the GoArmyEd (GAE) common application and register online in the GoArmyEd portal. All students must meet the general admissions requirements in the A&M-Central Texas University catalog. The guidelines below are to assist students in applying and registering through the portal. Procedures are subject to change, and students are encouraged to visit the GoArmyEd website for the latest information.

1. Access the GoArmyEd portal at http://www.goarmyed.com and create/activate your GoArmyEd account. Once your account is activated in GAE, please select Texas A&M University-Central Texas as your university of choice.

2. If A&M-Central Texas is your home school, request that official transcripts from each regionally accredited university or university previously attended be sent directly to A&M-Central Texas. Submit a high school transcript or GED scores verifying high school graduation equivalency if you have not already successfully completed at least 12 semester hours at another university or college.

3. Students who have not selected A&M-Central Texas as their home school are not required to submit official transcripts unless using financial aid.

4. Visit with a A&M-Central Texas representative (Faculty, College Advisor or Admissions) to obtain degree plan advisement and other school-related information (e.g. prerequisite requirements, instructional materials, WarriorWeb, etc.).

5. For information regarding your GoArmyEd course planner, student agreement requirements, holds, etc., select the “Smart Links” section on your GoArmyEd homepage.

Browse the GoArmyEd schedule of classes, on the GoArmyEd portal and register for classes. Refer to Reference Document titled “How to Enroll in a Class through GoArmyEd” or “How to Enroll in Classes Using the Course Planner”, depending on your particular status. All enrollment actions (i.e. enrollment requests, drops, and withdrawals) must be processed via the GoArmyEd portal prior to the semester’s posted deadline.

For any questions about using GAE with A&M-Central Texas, please call the Military and Veteran Services at 254-519-5423.

**Student Life and Services**

**Academic Support:**

Academic Support programs exist to provide support to all A&M-Central Texas students. Regardless of your major, your year of study, whether you are an online or on-campus student, we’re here to help you succeed and accomplish your academic goals.

Offering: Face-to-face tutoring, 24/7 online tutoring, student success workshops, and study abroad opportunities.

**Access and Inclusion:**

At A&M-Central Texas, we value an inclusive learning environment where every student has an equal chance to succeed and has the right to an education that is barrier-free. Access and Inclusion is responsible for ensuring that students with a disability enjoy equal access to the university’s programs, services, and activities.

**Career and Professional Development:**

Career and Professional Development supports the campus community as they move through their careers. To support the development of career and life-long learning goals, we empower the campus community with the necessary professional tools to explore careers, engage with the career of choice, and embark successfully in their career field.

**Behavioral Intervention Team:**

The Behavioral Intervention Team (BIT) is a multi-disciplinary group of professionals on campus who seek to proactively identify interpersonal and behavioral concerns related to the safety and well-being of the A&M-Central Texas Community. BIT meets regularly to review referrals brought forward. Referrals may be made at https://cm.maxient.com/reportingform.php?TAMUCentralTexas&layout_id=2 (https://cm.maxient.com/reportingform.php?TAMUCentralTexas&layout_id=2). Anonymous referrals are accepted.

**Student and Civic Engagement:**

Student and Civic Engagement supports an active community of student-leaders acting as catalysts for positive change. This office focuses on encouraging student involvement in campus organizations and supporting community-based programs. To get involved on campus, visit Engage (https://tamuct.campuslabs.com/engage/) and find your next adventure.

**Student Health Insurance:**

Any enrolled Texas A&M University System student taking at least six (6) credit hours of classes is eligible to enroll in this insurance plan. Students who are enrolled in special classes and take less than six (6) credit/contact hours of class work will be determined eligible for this Student Health Insurance Plan if the reduced coursework meets the criteria for the completion of a degree plan or international program as defined and approved by The Texas A&M University System.

**International Students Health Insurance Coverage**

Those who are not United States citizens or permanent residents of the United States, are required to maintain approved health insurance coverage continuously while enrolled and attending a Texas A&M System institution, unless the student provides proof of coverage that meets the Texas A&M University System waiver requirements. (See the TAMUS Policy #26.99.01).

**Student Success:**

Student Success programs focus on encouraging the personal growth of students through innovative student-centered programs that promote service, diversity, and integrity. These opportunities can empower students to engage socially, academically, and professionally to enhance lifelong learning.

**Student Counseling Center:**

The Student Counseling Center is a place where students can go for services that are designed to help handle day-to-day challenges and encourage personal growth and development. Our work provides services ranging from assistance with anxiety, depression, relationship concerns,
and crisis intervention. Students get the personal assistance needed in a welcoming and comfortable atmosphere. Services are available at no additional cost for students currently enrolled at A&M-Central Texas.

**University Writing Center:**
The University Writing Center (UWC) at A&M-Central Texas is a free workspace open to all A&M-Central Texas students. Students may arrange a one-on-one session with a trained and experienced writing tutor by visiting the UWC during normal operating hours (both half-hour and hour sessions are available). Tutors are prepared to help writers of all levels and abilities at any stage of the writing process. While tutors will not write, edit, or grade papers, they will assist students in developing more effective composing practices.

**University Library:**
Our 27,000-square-foot facility on the A&M-Central Texas main campus includes student lounges, private study rooms, group work spaces, computer labs, family areas suitable for all ages, and many other features. Services such as interlibrary loan, TexShare, binding, and laminating are available. The library frequently offers workshops, tours, readings, and other events.

The library offers technology including cameras, laptops, microphones, webcams, and digital sound recorders.

Research assistance from a librarian is also available 24 hours a day through our online chat service, and at the reference desk when the library is open. Research sessions can be scheduled for more comprehensive assistance, and may take place on Skype or in-person at the library. Assistance may cover many topics, including how to find articles in peer-reviewed journals, how to cite resources, and how to piece together research for written assignments.

**Student Conduct:**
The Office of Student Conduct supports the educational mission and goals of the university and is focused on student learning by challenging students to uphold high standards of personal and academic integrity. This is achieved through a procedurally sound conduct process with personal accountability, fairness, community, and learning as bedrock principles. To submit a referral for a possible violation of our standards, visit our online referral form (https://cm.maxient.com/reportingform.php?TAMUCentralTexas). For the most up-to-date Code of Student Conduct and applicable expectations, visit the Student Conduct web page (https://www.tamuct.edu/student-affairs/student-conduct.html).

**Student Complaints:**
Prior to filing a formal complaint, students are encouraged to resolve the concern directly with the individuals involved. Students will find that most situations can be effectively addressed in this manner. The right of a student to a prompt and equitable resolution of the complaint so filed shall not be impaired by the student's pursuit of other remedies, such as filing of a complaint with the responsible federal department or agency. Students are provided opportunities to specifically address complaints through established university procedures for sexual or gender-based discrimination, employment, admission to the university, disciplinary action, parking citations, academic matters, and grade appeals. The following procedures should be followed for handling other concerns not listed above.

**Prescribed Process**
1. Any student, hereinafter referred to as the student, wishing to submit a grievance shall initially file a formal grievance in writing to the Associate Dean of Student Affairs, herein referred to as the administrator. If the grievance is against the Associate Dean of Student Affairs, then the student shall submit in writing to the Dean of Student Affairs.
   A. The written notice should state the specific grievance; student's name, address, and telephone number; specific date(s); if possible, names of other persons allegedly involved as either witnesses or participants; and specific remedies sought. The written grievance must be signed and dated by the student and submitted within 30 business days of the alleged incident. Determination as to whether complaints submitted after this deadline will be considered on a case-by-case basis by the administrator.
   2. After the grievance is received, the investigative period may last up to 30 business days; extenuating circumstances may cause the university to deviate from the defined time frames. An investigation shall follow the submission of the grievance.
   A. The administrator shall conduct the investigation or appoint a university or system investigator, if necessary. The administrator will take reasonable measures to avoid any and all conflicts of interest in selecting the investigator. The investigator will gather all facts pertaining to the grievance and submit those in writing to the administrator.
   B. This procedure ensures thorough investigations, affording all involved parties an opportunity to submit evidence relevant to the grievance.
   3. The administrator shall send a written resolution to the student with the outcome(s), reason(s) for the decision, any remedies afforded, if any, and notice of the appeals process. The administrator shall also forward a copy of the resolution to the employee overseeing the area or individual and be kept on file for one calendar year in the Office of Student Affairs.

**Appeal**
1. If the student wishes to file an appeal of the resolution, the student shall notify the Dean of Student Affairs of the appeal in writing with a copy of the initial student grievance and copy of the administrator's written resolution. The written appeal must be signed by the student, and submitted within 10 business days of the administrator's resolution. Determination as to whether appeals submitted after this deadline will be considered on a case-by-case basis.
   2. An investigation shall follow the submission of the appeal. The Dean of Student Affairs will appoint an impartial panel consisting of three employees within the university or system. The Dean of Student Affairs will take reasonable measures to avoid any and all conflicts of interest in selecting the panel. Within 30 business days of receiving the appeal, the panel shall submit their decision in writing to the student with the outcome(s), reason(s) for the decision, and any remedies afforded, if any. Extenuating circumstances may cause the university to deviate from the defined time frames. The panel shall also forward a copy of the resolution to the Office of Student Affairs, which shall be kept on file for one calendar year. The resolution or outcome from the appeal is final.

**RELLIS Students:**
Admissions, financial aid, and other enrollment services are offered online through the main campus or in person in Killeen, TX. Student support and campus life services (i.e., academic support, career services, student activities and organizations, campus recreation, etc.) are offered through the RELLIS campus.
Other Resources:

Emergency or Immediate Assistance
To report immediate threats to life or property or if you require emergency assistance, please contact the University Police Department at (254) 501-5800 or call 911.

Texas A&M University System
The Texas A&M University System also maintains an online system for reporting waste, fraud, abuse or other serious ethics violations. It is available at the system site (https://secure.ethicspoint.com/domain/media/en/gui/20488/) or by calling (888) 501-3850.

Texas Higher Education Coordinating Board (THECB)
This student complaint procedure complies with the U.S. Department of Education’s “Program Integrity” regulations, which require each state to have a student complaint procedure in order for public and private higher education institutions to be eligible for federal Title IV funds. Current, former, and prospective students may initiate a complaint with THECB by visiting the Coordinating Board website. The THECB adopted rules codified under Title 19 of the Texas Administrative Code, §§ 1.110–1.120, on October 25, 2012.

Department of Defense Postsecondary Education Complaint System
Military-affiliated students may submit a complaint if they believe A&M-Central Texas is failing to follow the Principles of Excellence established by the President’s Executive Order. Examples of education-related issues may include, but are not limited to, misrepresentation or deceptive actions with regards to private or institutional loans, high-pressure recruitment tactics, false representations about degree programs, and misleading statement regarding accreditation. Students may submit a complaint at https://www.militaryonesource.mil/education-employment/for-service-members/choosing-a-college/postsecondary-education-complaint-system (https://www.militaryonesource.mil/education-employment/for-service-members/choosing-a-college/postsecondary-education-complaint-system/).

Accrediting Agency: Southern Association of Colleges and Schools Commission on Colleges (SACSCOC)
Information about filing a complaint with the university’s accrediting agency, the SACSCOC, can be found on the website. Please note that the SACSCOC complaint process is not intended to be used to involve the Commission in disputes between individuals and member institutions or to cause the Commission to interpose itself as a reviewing authority in individual matters; nor does the policy allow the Commission to seek redress on an individual’s behalf. The primary purpose of the SACSCOC complaint procedure is to acquire valuable information regarding an accredited institution’s possible noncompliance with accreditation standards, policies and procedures rather than to resolve individual disputes.

Undergraduate Admissions Information
A&M-Central Texas is an upper-division institution offering bachelor’s and master’s degrees. As an upper-division institution, all matriculating undergraduate students possess a minimum of 30 earned semester credits and meet other criteria as designated by the university (see Undergraduate Admission Requirements).

Application Semester
Applications for admission are for a specific semester. Applicants who did not complete the application process (i.e., did not complete and/or submit all application checklist requirements) who wish to change their application to a future semester are required to submit a new application and pay the application fee. Applicants accepted to the university who are unable to attend the initial semester of admission may be eligible for a deferment of admission (see Deferment of Admission (p. 24) section for additional information).

Applicant Communication
After an application is submitted via www.applytexas.org (http://www.applytexas.org/), the Office of Recruitment & Undergraduate Admissions emails undergraduate applicants information about the application process (i.e., application checklist requirements) and deadlines. It is important for applicants to provide a working email address on the application and is the responsibility of the applicant to check their email notifications. After an application is submitted, applicants can check the status of their application at any time, using the A&M-Central Texas Application Station (https://texasamcentral.radiusbycampusmgmt.com/ssc/zx671c700x6G0x6702aC673.ssc).

Admission Decisions
After all application checklist requirements are submitted, an admission decision typically takes seven to ten business days (may be longer depending on the time of year).

Undergraduate Admission Requirements
Undergraduate students who meet the following general admission requirements at the time of application are assured admission to A&M-Central Texas:

• Minimum 2.0 cumulative transfer GPA on a 4.0 scale;
• Minimum 30 academic, college-level transferable semester hours; and
• Must be eligible to return to all previously attended colleges or universities.

How to Apply
• Complete the undergraduate application by visiting http://www.applytexas.org;
• Pay the $30 non-refundable application fee via your electronic application or pay by cash, check, money order, or credit card in the Business Office; and
• Provide official copies of transcript(s) from each previously attended college or university.

Please Note: In accordance with The Texas A&M University System Regulation 11.99.02 Conduct Requirements for Admissions Applications and Transcripts, all applicants are required to disclose, at a minimum, criminal conviction histories – excluding juvenile adjudications – involving acts of violence or sexual misconduct and past substantiated or pending conduct charges involving acts of violence or sexual misconduct, and expulsions or suspensions from postsecondary institutions consistent with this regulation. Applicants who report one or more convictions or pending conduct charges are required to complete the Conduct Disclosure Supplemental Question Form to determine
eligibility to continue with the university admission process. Once submitted, the Admissions Review Committee evaluates the information provided and responds with a determination of whether the applicant may continue with the admission process at A&M-Central Texas. It is important to note an affirmative answer will not necessarily result in a negative admissions decision.

**Program Entry Requirements**

Some undergraduate degree programs at A&M-Central Texas have additional entry requirements separate from general admission. Students admitted to the university who have yet to be formally admitted to one of these programs may be eligible to enroll in certain coursework; however, the number of courses a student may complete prior to official program entry may vary by department. Students are not considered eligible to graduate until they fulfill the entry requirements and upper-level courses required by the department.

For additional information regarding undergraduate degree programs offered at A&M-Central Texas, please see Undergraduate Programs. (p. 49)

While programs that contain Teacher Certification Preparation courses do not have any additional entry requirements, there are specific requirements students will need to complete before entering into the Certification Preparation portion of these degrees. For further information on these requirements review the specific program pages or contact Educator Preparation services in the College of Education.

**International Students**

**International Admission**

Along with the general undergraduate admission requirements (p. 23), international applicants must meet the minimum English language proficiency requirements through one of the following ways:

- Test of English as a Foreign Language (TOEFL) minimum score of 69 (Internet-based test) or 520 (paper-based test) or 190 (computer-based test),
- International English Language Test (IELTS) minimum score of 6, or
- Completion of six semester credit hours of English composition with a grade of C or better in each course.

**Materials Needed for Application**

1. The State of Texas Common Application for Public Universities,¹ available at the following location: www.applytexas.org (http://www.applytexas.org/) (application is submitted electronically),
2. Official transcripts from colleges previously² attended,
3. Application fee $100 nonrefundable, and
4. Affidavit of Support and documented evidence of financial solvency (financial statement documentation).

Applications cannot be processed until all materials are received. Other documents may be requested as needed. The application and all requested materials must be submitted by the required admission deadline (p. 24).

**Additional Information**

Applications cannot be processed and an I-20 cannot be issued until all materials are received and the applicant is admitted to the university. 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. Check with the American Embassy for further details.

International applicants must submit two passport-style color photos taken within six months of application. The A&M System mandates that all international students have medical insurance with coverage in the United States. Students will be automatically enrolled and charged for health insurance as part of their matriculation.

1 Used by U.S. citizens and permanent residents to apply for undergraduate admission.
2 If courses were taken at a college or university outside of the United States, a course-by-course evaluation from an accredited foreign credentials evaluation service is required.

**Admission Deadlines and Application Fee**

**Admission Priority Dates and Deadlines**

Prospective undergraduate students are encouraged to apply for admission as early as possible. Application for admission, official transcripts, and all other requested documentation must be received by the below deadlines. Adhering to the priority deadlines will ensure an admission decision will be rendered before the beginning of the semester and will provide the student an opportunity to register for all available courses within the semester of entry.

Because A&M-Central Texas offers a variety of course scheduling options, applications for admission are accepted through the middle of each semester. Each long semester (i.e., fall and spring) consists of three parts of term: a session comprised of 16-week courses and two sessions comprised of 8-week courses, one of which begins in the middle of the semester. Therefore, students who apply and/or receive notice of admission after the priority deadline can still enroll in the second 8-week courses.

**Deferment of Admission**

Acceptance to the university is valid for the semester noted in the acceptance letter. For students unable to attend the initial semester of admission, A&M-Central Texas offers a one-time free deferment of admission to the university. Students may defer admission to begin coursework in either of the two upcoming semesters. Students who have already taken advantage of the one-time free deferment are required to reapply via ApplyTexas and pay the nonrefundable application fee.

It is the student’s responsibility to request a deferment of admission. If granted, the form and/or request serves as the admission application for the new entry semester and student information, including residency classification, will be obtained from the initial application. It is the student’s responsibility to ensure all of the information is accurate and necessary corrections are made prior to the census date of the applicable semester.

While not considered a deferment of admission, it is important to note that former A&M-Central Texas students who withdrew from the university to perform active military service as a member of the United States Armed Forces or the Texas National Guard are eligible to be readmitted without reapplication and application fee, so long as the student is otherwise eligible to register for class and returns within a year of being released from active duty.
Fall 2020

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<td>August 10, 2020</td>
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<td>Returning (Readmit)</td>
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<td>International Transfer</td>
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Spring 2021

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<td>March 23, 2020</td>
<td>January 5, 2021</td>
<td>March 12, 2021</td>
</tr>
<tr>
<td>Returning (Readmit)</td>
<td>March 23, 2020</td>
<td>January 5, 2021</td>
<td>March 12, 2021</td>
</tr>
<tr>
<td>Transient</td>
<td>March 23, 2020</td>
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<td>March 12, 2021</td>
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<tr>
<td>International Transfer</td>
<td>March 23, 2020</td>
<td>November 19, 2020</td>
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Summer 2021

<table>
<thead>
<tr>
<th>Student Type</th>
<th>Application Availability</th>
<th>Admission Priority Date</th>
<th>Admission Deadline</th>
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<td>Transfer</td>
<td>August 1, 2020</td>
<td>May 21, 2021</td>
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<tr>
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<td>May 21, 2021</td>
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<tr>
<td>Transient</td>
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</tr>
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<td>International Transfer</td>
<td>August 1, 2020</td>
<td>April 1, 2021</td>
<td>April 1, 2021</td>
</tr>
</tbody>
</table>

Please Note: Summer typically consists of four parts of term: a session of 10-week courses, a session of 8-week courses, and two 5-week sessions of courses (one of which begins in the middle of the semester).

Application Fee
Undergraduate students applying for admission to A&M-Central Texas are required to pay a nonrefundable application processing fee of $30. The application fee must be paid at the time of application (credit card payment via ApplyTexas). Additional payment options include payment by cash, check, money order, or credit card to the Business Office. A&M-Central Texas does not grant fee waivers for the application fee.

Please Note: It is the responsibility of the applicant to confirm availability of desired courses or programs prior to submitting the nonrefundable application fee.

Undergraduate Categories of Admission

Full Admission
Students who meet all undergraduate admission requirements at the time of application (minimum of 30 academic college-level transferable semester hours, minimum 2.0 cumulative transfer GPA, and eligible to return to all previously attended institutions) are granted full admission.

Non-Degree Seeking Admission
Non-degree seeking admission is available to applicants seeking to enroll at A&M-Central Texas who do not wish to pursue an undergraduate degree (at any institution). Students may desire to enroll as non-degree seeking to meet leveling requirements for a graduate degree or for personal or professional development. Students categorized as non-degree seeking are not restricted to one semester and are not required to reapply each semester. Applicants seeking non-degree seeking admission must provide the same application requirements as those seeking full admission to the university. Non-degree seeking students must be eligible to return to each previously attended institution and, if admitted, are not eligible for financial assistance. Students admitted as non-degree seeking who later wish to pursue a degree at A&M-Central Texas may do so; however, they must complete the regular admission process and meet all general admission requirements.

Transient Admission
Transient admission is available to students pursuing a baccalaureate degree at another college or university who seek to enroll at A&M-Central Texas for only one semester. Transient admission is restricted to one semester (including summer), and students must reapply each semester. Applicants seeking transient admission must provide the same application requirements as those seeking full admission to the university. Transient students must be eligible to return to each previously attended institution and, if admitted, are not eligible for financial assistance. Students admitted as transient who later wish to pursue a degree at A&M-Central Texas may do so; however, they must complete the regular admission process and meet all general admission requirements.

Post-Baccalaureate Admission
Students who have a prior bachelor's degree from an accredited U.S. institution and are eligible to return to all previously attended institutions may seek post-baccalaureate admission. Post-baccalaureate students may work on a subsequent bachelor's degree or teaching certification. To be considered for post-baccalaureate admission, students must complete an ApplyTexas application and submit an official transcript from all previously attended institutions. Applicants must meet general admission requirements. Note: Undergraduate academic standards apply to post-baccalaureate students.

Undergraduate Admission Appeals
Applicants who are denied admission and choose to appeal the denial can do so by directing appeal requests to the Executive Director of Enrollment Management. The Executive Director of Enrollment Management may then take the appeal to an Admissions Appeal Committee to make the final decision.

Readmission
Returning students, sometimes referred to as former students or readmits, are students who previously attended A&M-Central Texas and wish to return to the university after sitting out one or more long semesters. Generally, returning students must follow the below steps in order to be considered for readmission to the university:

1. Complete and submit an undergraduate application via ApplyTexas.
2. Pay the $30 nonrefundable application fee via your electronic application or pay by cash, check, money order, or credit card to the Business Office.
3. Submit official transcripts from every institution since last enrolled at A&M-Central Texas.

Returning students who do not enroll at any other college or university since last attending A&M-Central Texas will be readmitted to the university. Returning students who have enrolled at another college or
are considered to be official transcripts. Check with sending/receiving institutions for availability. Electronic transcripts take 24 to 48 hours to be received from sending school.

**Foreign Transcript Evaluation**

Official foreign transcripts must be translated and evaluated by an accredited foreign credentials evaluation service. Students applying for admission who have attended a college or university outside of the United States must submit a course-by-course evaluation from an accredited foreign credentials evaluation service. Check with Recruitment & Undergraduate Admissions for information regarding university-approved evaluation agencies.

GI Bill® is a registered trademark of the U.S. Department of Veterans Affairs (VA). More information about education benefits offered by VA is available at the official U.S. government Web site at https://www.benefits.va.gov/gibill. (https://benefits.va.gov/gibill/)

**Military Transcripts and Credit Evaluation**

A&M-Central Texas awards evaluated credit for military education and learning experiences at the request of the student. An evaluated educational plan will be provided within 60 days after admission and the receipt of all official transcripts (including the Joint Services Transcript or Community College of the Air Force Transcript). The military credit evaluation process is initiated at the time the university receives the Joint Services Transcript or Community College of the Air Force Transcripts.

**Military Service Credit**

An institution of higher education shall award to an undergraduate student who is admitted to the institution, including a student who is readmitted under Texas Education Code § 51.3042, course credit for all physical education courses required by the intuition (4CH for an undergraduate degree) and for additional semester credit hours, not to exceed 12, that may be applied to satisfy any elective course requirements for the student's degree program for courses outside the student's major or minor if the student:

- graduated from a public or private high school accredited by a generally recognized accrediting organization or from a high school operated by the U.S. Department of Defense,
- received an honorable discharge as a former member of the armed forces of the United States, and
- completed a minimum of two years of service in the armed services or was discharged because of a disability.

Please Note: To have credit awarded, students must provide proof of eligibility. Careful consideration should be given to the total effect of the additional course credit on degree progress and other institutional rules.

**Other Military Coursework**

Other military coursework may be considered for transfer credit. Evaluations will be completed after enrollment, and transfer credit is subject to approval by the student's major department/school. Acceptable forms of documentation that may be submitted include:

1. Joint Service Transcript (JST): Go to the web page (https://www.militaryonesource.mil/education-employment/for-service-members/preparing-for-higher-education/the-joint-services-transcript-for-military-personnel/) and send your official transcript to
Office of Recruitment & Undergraduate Admissions at A&M-Central Texas.


The university uses the American Council on Education (ACE) guidelines in the evaluation of these transcripts. Military students may also be awarded credit for specified levels of achievement on certain Credit By Examinations, which are typically taken during or shortly after time served in the military. Credit awarded for military education or experience may not be used for admission purposes. A&M-Central Texas grants credit for the lower- and upper-division baccalaureate category but does not award credit for vocational or graduate-level work. Students with technical credit based on military experience may only apply such credits to the Bachelor of Arts and Applied Science (B.A.A.S.) degree options.

Immunizations

Meningitis

Meningitis - All new students aged 21 years or younger 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. Students may contact the Office of Recruitment & Undergraduate Admissions for more details.

Recommendations (for all students)

Measles - All students enrolling in institutions of higher education should have two doses of the measles vaccine prior to the start of classes.

Meningitis - All students enrolling in institutions of higher education should have a bacterial meningitis vaccination dose or booster as recommended by the Center for Disease Control (CDC).

Tetanus/Diphtheria - Tetanus vaccines are effective for about 10 years and need to be boosted at that interval; they should be given in combination with the diphtheria vaccine.

Requirements (for students enrolling in health-related courses)

Students enrolling in health-related courses that involve direct patient contact (i.e., nursing) must meet the following immunization criteria:

Measles - Persons born since January 1, 1957, must have two doses since 12 months of age, with the doses coming at least 30 days apart.

Mumps - Persons born since January 1, 1957, must have at least one dose since 12 months of age.

Rubella - Must have at least one dose since 12 months of age.

Tetanus/Diphtheria - Must have one dose within the past 10 years.

Hepatitis B - A complete series or proof of immunity is encouraged for any student enrolling in health-related courses that involve direct patient contact, especially with patients’ blood (i.e., nursing). Nursing students are required to take the hepatitis series or sign a waiver.

Meningitis - All students enrolling in nursing must have a meningitis vaccination dose or booster as recommended by the Center for Disease Control (CDC).

Citations

Entering college students required to receive meningococcal vaccination and students not required to receive meningococcal vaccine are defined by the Texas Higher Education Coordinating Board Rules, Chapter 21, Subchapter T, §21.612, §21.613, and §21.614

Student Orientation

New Student Orientation

New student orientation is an important part of a student’s transition into the university and supports awareness of the support structures and policies at A&M-Central Texas. New undergraduate students are required to complete online orientation prior to registering for courses. The orientation can be accessed at https://launch.comevo.com/ct-tamus/175 (https://launch.comevo.com/ct-tamus/175/) and should take approximately 45 to 60 minutes to complete. Please contact New Student Programs at (254) 519-5496 or nsp@tamuct.edu with any questions.

Sexual Assault Prevention Training

In accordance with Texas House Bill No. 699 and the Campus Save Act/Clery Act, A&M-Central Texas provides mandatory orientation/training on the university’s sexual assault policy to all incoming and transfer students. Students will receive the required training information in their student email within the first two weeks of class. Students who do not complete the required training will not be allowed to progress from one semester to the other until the training is complete.

Texas Success Initiative (TSI)

The State of Texas requires all incoming undergraduate students to demonstrate college readiness in reading, writing, and mathematics as defined by the Texas Success Initiative (TSI) program. Most incoming transfer students meet minimum TSI requirements through exemption, prior college coursework, or they have previously passed the TSI assessment, so no further demonstration of college readiness is required. While not a requirement for admission, transfer students entering A&M-Central Texas who do not meet TSI requirements will be advised by college academic advisors in regard to which entry-level course(s) may still need to be completed at another institution.

General TSI Exemptions

Students may be exempt from all (Math, Reading, and Writing) TSI requirements under any one of the following conditions:

Prior TSI Exemption

Students who have previously attended any institution and have been determined to have met readiness standards by that institution shall not be required to provide any additional demonstration of college readiness.

Degree Holder

Students are exempt in all TSI areas if an associate or baccalaureate degree is held from an institution of higher education.
Military

- Students are exempt in all TSI areas if serving on active duty as a member of the U.S. Armed Forces or the Texas National Guard.
- Students are exempt in all TSI areas if currently serving as a member of a reserve component of the U.S. Armed Forces and having served for at least 3 years preceding enrollment.
- Students are exempt if honorably discharged, retired, or released from active duty as a member of the U.S. Armed Forces or the Texas National Guard, or have served as a member of the U.S. Armed Forces.

Non-Degree Seeker

Students are exempt if considered a non-degree seeking and/or visiting student. Students who later become a degree-seeking student will be required to meet TSI standards.

Exemption by Prior College Credit

Math, Reading, and Writing: Students transferring in college-level courses from another institution of higher education who have achieved a “C” may be exempt from taking the TSI assessment in one or more areas. Undergraduate Admissions will review upon receipt of official transcripts.

Exemption by Test Scores

AP Credit (Score of 3 or higher)

- Math: Calculus AB; Calculus BC; Statistics
- Reading: English Language and Composition; English Literature and Composition; Comparative Government and Politics; European History; Human Geography; Psychology; United States Government and Politics; United States History; World History
- Writing: English Language and Composition; English Literature and Composition

ACT

- Math: Composite 23 and Math 19
- Reading: Composite 23 and English 19
- Writing: Composite 23 and English 19

SAT

- Math: Composite 1070 and Math 500
- Reading: Composite 1070 and Critical Reading/Verbal 500
- Writing: Composite 1070 and Critical Reading/Verbal 500

TAKS

- Math: Math 2200
- Reading: ELA 2200 and writing essay score 3
- Writing: ELA 2200 and writing essay score 3

STAAR

- Math: End-of-course score of level 2 on Algebra II
- Reading: End-of-course score of level 2 on English III
- Writing: End-of-course score of level 2 on English III

TSI Assessment

Unless exempt (see above), the Texas Higher Education Coordinating Board requires that, prior to enrollment, each student must be assessed in three skill areas (reading, writing, and mathematics) by taking the TSI examination and achieving the following scores:

- Math: College Ready if ≥ 350
- Reading: College Ready if ≥ 351
- Writing: Placement score of at least 340 and an essay score of at least a 4; or, a placement score of less than 340, and an ABE Diagnostic level of at least 4, and an essay score of at least 5

General Education Core Requirements

All baccalaureate degree programs must include the following university general education requirements: 1, 2

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication (010)</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Mathematics (020)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Life &amp; Physical Sciences (030)</td>
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<td>6</td>
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<tr>
<td>Language, Philosophy &amp; Culture (040)</td>
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<td>3</td>
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<tr>
<td>Creative Arts (050)</td>
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<td>American History (060)</td>
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<td>Government/Political Science (070)</td>
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<tr>
<td>Social &amp; Behavioral Sciences (080)</td>
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<td>Component Area Option (090)</td>
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<tr>
<td>Total Credit Hours</td>
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</tr>
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</table>

Communication (010)

Courses in this category focus on developing ideas and expressing them clearly, considering the effect of the message, fostering understanding, and building the skills needed to communicate persuasively. Courses involve the command of oral, aural, written, and visual literacy skills that enable people to exchange messages appropriate to a given subject, occasion, and audience. The following four Core Objectives must be addressed in each course approved to fulfill this category requirement: Critical Thinking Skills, Communications Skills, Teamwork, and Personal Responsibility.

Mathematics (020)

Courses in this category focus on quantitative literacy in logic, patterns, and relationships. Courses involve the understanding of key mathematical concepts and the application of appropriate quantitative tools to everyday experience. The following three Core Objectives must be addressed in each course approved to fulfill this category requirement: Critical Thinking Skills, Communications Skills, and Empirical and Quantitative Skills.

Life & Physical Sciences (030)

Courses in this category focus on describing, explaining, and predicting natural phenomena using the scientific method. Courses involve the understanding of interactions among natural phenomena and the implications of scientific principles on the physical world and on human experiences. The following four Core Objectives must be addressed in each course approved to fulfill this category requirement: Critical
one of the remaining Core Objectives of the institution’s choice.

Objectives, including Critical Thinking Skills, Communication Skills, and semester credit hours of the Component Area Option, an institution may component areas outlined above. As an option for up to three (3) the definition and Core Objectives specified in one of the foundational Component Area Option (090)

Empirical and Quantitative Skills, and Social Responsibility.

Objectives must be addressed in each course approved to fulfill this category requirement: Critical Thinking Skills, Communications Skills, Personal Responsibility, and Social Responsibility.

Creative Arts (050)
Courses in this category focus on the appreciation and analysis of creative artifacts and works of the human imagination. Courses involve the synthesis and interpretation of artistic expression and enable critical, creative, and innovative communication about works of art. The following four Core Objectives must be addressed in each course approved to fulfill this category requirement: Critical Thinking Skills, Communications Skills, Teamwork, and Social Responsibility.

American History (060)
Courses in this category focus on the consideration of past events and ideas relative to the United States with the option of including Texas History for a portion of this component area. Courses involve examining the interaction among individuals, communities, states, the nation, and the world, considering how these interactions have contributed to the development of the United States and its global role. The following four Core Objectives must be addressed in each course approved to fulfill this category requirement: Critical Thinking Skills, Communications Skills, Personal Responsibility, and Social Responsibility.

Government/Political Science (070)
Courses in this category focus on consideration of the Constitution of the United States and the constitutions of the states, with special emphasis on that of Texas. Courses involve the analysis of governmental institutions, political behavior, civic engagement, and the political and philosophical foundations. The following four Core Objectives must be addressed in each course approved to fulfill this category requirement: Critical Thinking Skills, Communications Skills, Personal Responsibility, and Social Responsibility.

Social & Behavioral Sciences (080)
Courses in this category focus on the application of empirical and scientific methods that contribute to the understanding of what makes us human. Courses involve the exploration of behavior and interactions among individuals, groups, institutions, and events, examining their impact on individual, society, and culture. The following four Core Objectives must be addressed in each course approved to fulfill this category requirement: Critical Thinking Skills, Communications Skills, Personal Responsibility, and Social Responsibility.

Component Area Option (090)
Courses designated to complete the Component Area Option must meet the definition and Core Objectives specified in one of the foundational component areas outlined above. As an option for up to three (3) semester credit hours of the Component Area Option, an institution may certify that the course(s) meet the definition specified for one or more of the foundational component areas; and include a minimum of three Core Objectives, including Critical Thinking Skills, Communication Skills, and one of the remaining Core Objectives of the institution’s choice.

Core Curriculum Learning Objectives
Through the Texas Core Curriculum, students will prepare for contemporary challenges by developing and demonstrating the following core objectives:

• Critical Thinking Skills - to include creative thinking, innovation, inquiry, and analysis, evaluation, and synthesis of information.
• Communication Skills - to include effective development, interpretation, and expression of ideas through written, oral, and visual communication.
• Empirical and Quantitative Skills - to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.
• Teamwork - to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal.
• Personal Responsibility - to include the ability to connect choices, actions, and consequences to ethical decision-making.
• Social Responsibility - to include intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities.

Core Curriculum Transfer
Students who complete all general education requirements as approved by the Texas Higher Education Coordinating Board (THECB) at another Texas public school and who then transfer to A&M-Central Texas will generally be considered to have met the general education requirements as outlined toward a degree at A&M-Central Texas. However, additional requirements for the degree must be met, possibly requiring students to take one or more courses that are part of the general education requirements at A&M-Central Texas.

1 General education requirements are subject to review and change by the THECB.
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 Creative Arts courses must be historical, appreciative, or theoretical in nature; an applied or performance course is not acceptable.

The following sections of the Common Core list individual courses that meet the requirements for that core component area. The list for each section are the most commonly applied courses across the Texas public school and who then transfer to A&M-Central Texas will generally be considered to have met the general education requirements as outlined toward a degree at A&M-Central Texas. However, additional requirements for the degree must be met, possibly requiring students to take one or more courses that are part of the general education requirements at A&M-Central Texas.

Some courses are listed in several different component areas; the same course can only be used to satisfy one component area. A course will be applied to the subject area of the core curriculum first, then a subsequent component area for core curriculum completion. When the subject area has been satisfied, the course will be used to satisfy the next component area.

The (090) Component Area Option listing in not inclusive of all course work that can be applied. The listing is identifies most lower-level and field of study course work required on several of A&M-CT programs.

See your college advisor for more information. The Common Core listing for each section may also be found at this website: http://board.thecb.state.tx.us/apps/TCC/.
## Communication (010)

<table>
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<tr>
<th>Course Number</th>
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<tbody>
<tr>
<td>ENGL 1301</td>
<td>Composition I</td>
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<tr>
<td>ENGL 1302</td>
<td>Composition II</td>
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<tr>
<td>ENGL 2311</td>
<td>Technical &amp; Business Writing</td>
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<tr>
<td>SPCH 1311</td>
<td>Introduction to Speech Communication</td>
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<tr>
<td>SPCH 1315</td>
<td>Public Speaking</td>
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<tr>
<td>SPCH 1318</td>
<td>Interpersonal Communication</td>
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<tr>
<td>SPCH 1321</td>
<td>Business &amp; Professional Communication</td>
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<td>COMM 1307</td>
<td>Introduction to Mass Communication</td>
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## Mathematics (020)

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<td>MATH 1316</td>
<td>Plane Trigonometry</td>
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<td>MATH 1324</td>
<td>Mathematics for Business &amp; Social Sciences</td>
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<td>MATH 1325</td>
<td>Calculus for Business &amp; Social Sciences</td>
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<tr>
<td>MATH 1332</td>
<td>Contemporary Mathematics</td>
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<td>MATH 1342</td>
<td>Elementary Statistical Methods</td>
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<td>MATH 1350</td>
<td>Mathematics for Teachers (Fundamentals of Mathematics I)</td>
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<td>Mathematics for Teachers II (Fundamentals of Mathematics II)</td>
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<td>College Algebra</td>
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<td>PHIL 2303</td>
<td>Introduction to Formal Logic</td>
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<td>PSYC 2317</td>
<td>Statistical Methods in Psychology</td>
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## Life & Physical Science (030)

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<td>AGRI 1307</td>
<td>Agronomy (Lecture)</td>
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<tr>
<td>AGRI 1407</td>
<td>Agronomy (Lecture + Lab)</td>
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<tr>
<td>AGRI 1115</td>
<td>Horticulture (Lab)</td>
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<td>AGRI 1315</td>
<td>Horticulture (Lecture)</td>
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<tr>
<td>AGRI 1415</td>
<td>Horticulture (Lecture + Lab)</td>
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<td>AGRI 1119</td>
<td>Introductory Animal Science (Lab)</td>
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<td>Introductory Animal Science (Lecture + Lab)</td>
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<td>ANTH 2101</td>
<td>Physical Anthropology (Lab)</td>
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<td>Star and Galaxies (Lab)</td>
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<td>Stars and Galaxies (Lecture)</td>
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<td>Stars and Galaxies (Lecture + Lab)</td>
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<td>Solar System (Lab)</td>
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General Education Core Requirements

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<td>HIST 2381</td>
<td>African-American History</td>
</tr>
<tr>
<td>HUMA 1301</td>
<td>Introduction to Humanities I</td>
</tr>
<tr>
<td>HUMA 1302</td>
<td>Introduction to Humanities II</td>
</tr>
<tr>
<td>HUMA 1305</td>
<td>Introduction to Mexican American Studies</td>
</tr>
<tr>
<td>HUMA 1315</td>
<td>Fine Arts Appreciation</td>
</tr>
<tr>
<td>JAPN 2311</td>
<td>Intermediate Japanese I</td>
</tr>
<tr>
<td>JAPN 2312</td>
<td>Intermediate Japanese II</td>
</tr>
<tr>
<td>LATI 2311</td>
<td>Intermediate Latin I</td>
</tr>
<tr>
<td>LATI 2312</td>
<td>Intermediate Latin II</td>
</tr>
<tr>
<td>MATH 1314</td>
<td>College Algebra</td>
</tr>
<tr>
<td>MATH 1414</td>
<td>College Algebra</td>
</tr>
<tr>
<td>MATH 1324</td>
<td>Mathematics for Business &amp; Social Sciences</td>
</tr>
<tr>
<td>MATH 1332</td>
<td>Contemporary Mathematics</td>
</tr>
<tr>
<td>MATH 1342</td>
<td>Elementary Statistical Methods</td>
</tr>
<tr>
<td>MATH 1350</td>
<td>Mathematics for Teachers I</td>
</tr>
<tr>
<td>MATH 1351</td>
<td>Mathematics for Teachers II</td>
</tr>
<tr>
<td>MATH 2305</td>
<td>Discrete Mathematics</td>
</tr>
<tr>
<td>MATH 2313</td>
<td>Calculus I</td>
</tr>
<tr>
<td>MATH 2314</td>
<td>Calculus II</td>
</tr>
<tr>
<td>MATH 2318</td>
<td>Linear Algebra</td>
</tr>
<tr>
<td>MATH 2320</td>
<td>Differential Equations</td>
</tr>
<tr>
<td>MATH 2413</td>
<td>Calculus I</td>
</tr>
<tr>
<td>MATH 2414</td>
<td>Calculus II</td>
</tr>
<tr>
<td>MATH 2415</td>
<td>Calculus III</td>
</tr>
<tr>
<td>MUSI 1116</td>
<td>Sight Singing &amp; Ear Training I</td>
</tr>
<tr>
<td>MUSI 1117</td>
<td>Sight Singing &amp; Ear Training II</td>
</tr>
<tr>
<td>MUSI 1181</td>
<td>Piano Class I</td>
</tr>
<tr>
<td>MUSI 1182</td>
<td>Piano Class II</td>
</tr>
<tr>
<td>MUSI 1303</td>
<td>Fundamentals of Music</td>
</tr>
<tr>
<td>MUSI 1307</td>
<td>Music Literature</td>
</tr>
<tr>
<td>MUSI 1310</td>
<td>American Music</td>
</tr>
<tr>
<td>MUSI 1311</td>
<td>Music Theory I</td>
</tr>
<tr>
<td>MUSI 1312</td>
<td>Music Theory II</td>
</tr>
<tr>
<td>MUSI 2116</td>
<td>Sight Singing &amp; Ear Training III</td>
</tr>
<tr>
<td>MUSI 2117</td>
<td>Sight Singing &amp; Ear Training IV</td>
</tr>
<tr>
<td>MUSI 2182</td>
<td>Piano Class IV</td>
</tr>
<tr>
<td>MUSI 2311</td>
<td>Music Theory III</td>
</tr>
<tr>
<td>MUSI 2312</td>
<td>Music Theory IV</td>
</tr>
</tbody>
</table>
Transfer Credit and Evaluation

The Office of Recruitment & Undergraduate Admissions reviews all credit recorded on the transfer institution’s transcripts and makes the initial determination of course transferability. Transfer of credit involves several considerations including, but not limited to: educational quality, comparability of content and level, and appropriateness and applicability of the transfer learning experience. A&M-Central Texas considers academic, collegiate-level transfer credit from institutions accredited by one of the six regional accreditors. Academic transfer credit from an institution that is non-regionally accredited is also considered when the accredits appears on the Texas Higher Education Coordinating Board’s (THECB) list of recognized nationally accredited agencies.

All transferable credit is matched to an equivalent A&M-Central Texas course prefix and number. Course equivalents are assigned through an evaluation process that ensures transfer course descriptions and/or learning outcomes are consistent with, and comparable to, expected student learning outcomes. When the transfer course does not align with expected learning outcomes (unmatched course), transferable coursework is recorded as an elective within the appropriate academic discipline. Such courses may be applied to the student’s degree with advisor approval.

Courses transfer on the same level the original course was taught with the corresponding grades and number of hours earned at the other institution (quarter hours will be converted to semester hours). If the course is determined to be transferable, then the grade earned is also transferable. Grades of D and F are transferable. A minimum grade of D is required to satisfy degree requirements, except for academic programs that specify a higher minimum grade.

To determine admissibility, the transfer GPA calculation includes all attempted transferable hours. When a course is repeated, only the best effort is computed in the transfer GPA calculation. Remedial/developmental grades are nontransferable and are not used for admission purposes. Workforce education (also known as occupational, vocational, or technical) courses are not designed for transfer into academic, collegiate-level programs.
Credit by Examination

Undergraduate students at A&M-Central Texas may be awarded course credit for specified levels of achievement on institutionally approved, standardized examination programs, such as Advanced Placement (AP), College Level Examination Program (CLEP), ACT/SAT subject tests, and International Baccalaureate (IB) degree. Undergraduate students who meet the required minimum credit-granting score(s) (see below) will be assigned a letter grade of P (pass) for the corresponding course equivalent(s).

- It is the student's responsibility to request and/or submit official score reports to the Office of Recruitment & Undergraduate Admissions.

- Credit by examination cannot be assigned a letter grade and is not counted in grade point average (GPA) calculations or for residency and honors purposes.

- Only lower-level course credit may be awarded.

- No more than 60 credits by examination may be applied to an undergraduate degree.

- Challenge examination credit granted by other institutions will not transfer to A&M-Central Texas.

- For additional information regarding applicability of these tests to specific degree programs, students should contact an academic advisor.

Undergraduate students who demonstrate superior achievement on DANTES Subject Standardized Tests (DSST), Excelsior College Examinations (UExcel), and the Defense Language Proficiency Test (DLPT) may also be considered for credit eligibility. Eligibility will be reviewed on a case-by-case basis. For more information, please contact the Office of Recruitment & Undergraduate Admissions.

Advanced Placement (AP)

The Advanced Placement program was created in cooperation with college and high school staff and faculty. The examination reflects mastery of the material generally agreed upon to be appropriate for introductory coursework at the college level. The tables below display the AP examinations that may be accepted for lower-division credit, the credit hours granted, and the equivalent course(s).

### Arts

<table>
<thead>
<tr>
<th>Exam Title</th>
<th>Min. Score Required</th>
<th>Semester Credit Hours</th>
<th>Equivalent Course(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art History</td>
<td>3</td>
<td>6</td>
<td>ARTS 1303; ARTS 1304</td>
</tr>
<tr>
<td>Music Theory</td>
<td>3</td>
<td>6</td>
<td>MUSI 1311; MUSI 1312</td>
</tr>
<tr>
<td>Studio Art 2-D Design</td>
<td>3</td>
<td>3</td>
<td>ARTS 1311</td>
</tr>
<tr>
<td>Studio Art 3-D Design</td>
<td>3</td>
<td>3</td>
<td>ARTS 1312</td>
</tr>
<tr>
<td>Studio Art: Drawing</td>
<td>3</td>
<td>3</td>
<td>ARTS 1316</td>
</tr>
</tbody>
</table>

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university curricula and, with only a few exceptions, are nontransferable to A&M-Central Texas.

Prior learning assessment, such as credit by examination and military credit, can satisfy degree requirements, but is not considered when determining admission eligibility. All accepted transfer coursework is articulated and posted to the student's academic transcript. International applicants must provide official transcripts and submit a course-by-course transcript evaluation from an evaluation service recognized by the National Association of Credential Evaluation Services (NACES) or the Association of International Credentials Evaluators (AICE).

Texas Common Course Numbering System

As outlined in Texas Education Code § 61.832, the Texas Common Course Numbering System (TCCNS) facilitates the transfer of general academic courses between Texas public institutions. Common courses are included in the Academic Course Guide Manual, published by the THECB. The purpose of the system is to assist students who are transferring between participating institutions. If you have questions regarding transferability of courses, please contact Recruitment & Undergraduate Admissions at (254) 519-5438.

If A&M-Central Texas does not accept lower-division academic course credit earned by a student at another public institution of higher education in Texas, A&M-Central Texas will give written notice to the student and the other institution that the transfer of course credit is denied. The two institutions and the student shall attempt to resolve any dispute regarding the transfer of the course credit in accordance with THECB guidelines. If the dispute is not resolved to the satisfaction of the student and the institution from which the credit was earned, the student may file a Transfer Dispute Resolution form (CB-TDR) with A&M-Central Texas. This must be submitted within 15 days of the date the student receives written notification of the denial of credit. A&M-Central Texas will forward a copy of the CB-TDR to the Commissioner of Higher Education, who will resolve the dispute. In this instance, the Commissioner gives written notice to the student and institutions involved.

Academic Fresh Start

Texas Senate Bill 1321 entitles residents of the state of Texas to seek admission to public institutions of higher education without consideration of courses taken ten or more years prior to enrollment. Under this bill, a student can request that all coursework taken ten or more years prior to the planned enrollment be ignored for admission purposes.

Applicants who elect to apply for admission under this law, and who are admitted as students, will not receive any course credit for courses undertaken ten or more years prior to enrollment. Either all credit hours from ten or more years prior to enrollment are ignored or all are counted for admission purposes. Applicants interested in seeking an Academic Fresh Start should contact Recruitment & Undergraduate Admissions at the time of application and prior to an admission decision being made.

Please Note: Academic Fresh Start is tied to the admission process and may only be requested at the time of admission. Academic Fresh Start is irrevocable. Prerequisite courses ignored under Academic Fresh Start need to be retaken.
### English

<table>
<thead>
<tr>
<th>Exam Title</th>
<th>Min. Score Required</th>
<th>Semester Credit Hours</th>
<th>Equivalent Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Language 3 and Composition</td>
<td>3</td>
<td>6</td>
<td>ENGL 1301; ENGL 1302</td>
</tr>
<tr>
<td>English Literature 3 and Composition</td>
<td>3</td>
<td>6</td>
<td>ENGL 1302; ENGL 2341</td>
</tr>
</tbody>
</table>

### History & Social Sciences

<table>
<thead>
<tr>
<th>Exam Title</th>
<th>Min. Score Required</th>
<th>Semester Credit Hours</th>
<th>Equivalent Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comparative Government and Politics</td>
<td>3</td>
<td>3</td>
<td>GOVT 2304</td>
</tr>
<tr>
<td>European History</td>
<td>3</td>
<td>3</td>
<td>HIST 2311; HIST 2312</td>
</tr>
<tr>
<td>Human Geography</td>
<td>3</td>
<td>3</td>
<td>GEOG 1302</td>
</tr>
<tr>
<td>Macroeconomics</td>
<td>3</td>
<td>3</td>
<td>ECON 2301</td>
</tr>
<tr>
<td>Microeconomics</td>
<td>3</td>
<td>3</td>
<td>ECON 2302</td>
</tr>
<tr>
<td>Psychology</td>
<td>3</td>
<td>3</td>
<td>PSYC 2301</td>
</tr>
<tr>
<td>United States Government and Politics</td>
<td>3</td>
<td>3</td>
<td>GOVT 2305</td>
</tr>
<tr>
<td>United States History</td>
<td>3</td>
<td>6</td>
<td>HIST 1301; HIST 1302</td>
</tr>
<tr>
<td>World History</td>
<td>3</td>
<td>6</td>
<td>HIST 2321; HIST 2322</td>
</tr>
</tbody>
</table>

### Math & Computer Science

<table>
<thead>
<tr>
<th>Exam Title</th>
<th>Min. Score Required</th>
<th>Semester Credit Hours</th>
<th>Equivalent Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calculus AB</td>
<td>3</td>
<td>4</td>
<td>MATH 2413</td>
</tr>
<tr>
<td>Calculus BC</td>
<td>3</td>
<td>8</td>
<td>MATH 2413; MATH 2414</td>
</tr>
<tr>
<td>Computer Science A</td>
<td>3</td>
<td>3</td>
<td>COSC 1309</td>
</tr>
<tr>
<td>Computer Science Principles</td>
<td>3</td>
<td>3</td>
<td>COSC 1301</td>
</tr>
<tr>
<td>Statistics</td>
<td>3</td>
<td>3</td>
<td>MATH 1442</td>
</tr>
</tbody>
</table>

### Sciences

<table>
<thead>
<tr>
<th>Exam Title</th>
<th>Min. Score Required</th>
<th>Semester Credit Hours</th>
<th>Equivalent Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>3</td>
<td>8</td>
<td>BIOL 1406; BIOL 1407</td>
</tr>
<tr>
<td>Chemistry</td>
<td>3</td>
<td>8</td>
<td>CHEM 1411; CHEM 1412</td>
</tr>
<tr>
<td>Environmental Science</td>
<td>3</td>
<td>4</td>
<td>ENVR 1401</td>
</tr>
<tr>
<td>Physics C: Electricity and Magnetism</td>
<td>3</td>
<td>4</td>
<td>PHYS 2426</td>
</tr>
<tr>
<td>Physics 1: Algebra-Based</td>
<td>3</td>
<td>4</td>
<td>PHYS 1401</td>
</tr>
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</table>

### Physics 2: Algebra-Based

<table>
<thead>
<tr>
<th>Exam Title</th>
<th>Min. Score Required</th>
<th>Semester Credit Hours</th>
<th>Equivalent Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chinese Languages &amp; Culture</td>
<td>3</td>
<td>8</td>
<td>CHIN 1411; CHIN 1412</td>
</tr>
<tr>
<td>French Languages &amp; Culture</td>
<td>3</td>
<td>8</td>
<td>FREN 1411; FREN 1412</td>
</tr>
<tr>
<td>German Languages &amp; Culture</td>
<td>3</td>
<td>8</td>
<td>GERM 1411; GERM 1412</td>
</tr>
<tr>
<td>Italian Languages 3 &amp; Culture</td>
<td>3</td>
<td>8</td>
<td>ITAL 1411; ITAL 1412</td>
</tr>
<tr>
<td>Japanese Languages &amp; Culture</td>
<td>3</td>
<td>8</td>
<td>JAPN 1411; JAPN 1412</td>
</tr>
<tr>
<td>Latin</td>
<td>3</td>
<td>8</td>
<td>LATI 1411; LATI 1412</td>
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<tr>
<td>Spanish Languages &amp; Culture</td>
<td>3</td>
<td>8</td>
<td>SPAN 1411; SPAN 1412</td>
</tr>
<tr>
<td>Spanish Literature &amp; Culture</td>
<td>3</td>
<td>8</td>
<td>SPAN 2411; SPAN 2412</td>
</tr>
</tbody>
</table>

### College Level Examination Program (CLEP)

The College-Level Examination Program (CLEP) for the College Board of Educational Testing Services provides examinations to measure achievement in specific college-level courses. Consistent with the credit-granting scores and semester hours recommended by the American Council on Education (ACE), the below tables display CLEP examinations that may be accepted for lower-division credit, the credit hours granted, and the equivalent course(s).

### Business

<table>
<thead>
<tr>
<th>Exam Title</th>
<th>Min. Score Required</th>
<th>Semester Credit Hours</th>
<th>Equivalent Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Accounting</td>
<td>50</td>
<td>3</td>
<td>ACCT 2301</td>
</tr>
<tr>
<td>Information Systems</td>
<td>50</td>
<td>3</td>
<td>BCIS 1301</td>
</tr>
<tr>
<td>Introductory Business Law</td>
<td>50</td>
<td>3</td>
<td>BUSI 2301</td>
</tr>
<tr>
<td>Principles of Management</td>
<td>50</td>
<td>3</td>
<td>Lower-Level Business Elective</td>
</tr>
<tr>
<td>Principles of Marketing</td>
<td>50</td>
<td>3</td>
<td>Lower-Level Business Elective</td>
</tr>
</tbody>
</table>

### Composition & Literature

<table>
<thead>
<tr>
<th>Exam Title</th>
<th>Min. Score Required</th>
<th>Semester Credit Hours</th>
<th>Equivalent Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Literature</td>
<td>50</td>
<td>3</td>
<td>ENGL 2326</td>
</tr>
</tbody>
</table>
Analyzing and Interpreting Literature 50 3 ENGL 2341
College Composition 50 3 ENGL 1301; ENGL 1302
College Composition Modular 50 3 Lower-Level English Elective
English Literature 50 3 ENGL 2321
Humanities 50 3 HUMA 1301

History & Social Science

<table>
<thead>
<tr>
<th>Exam Title</th>
<th>Min. Score Required</th>
<th>Semester Credit Hours</th>
<th>Equivalent Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Government</td>
<td>50</td>
<td>3</td>
<td>GOVT 2305</td>
</tr>
<tr>
<td>History of the United States I</td>
<td>50</td>
<td>3</td>
<td>HIST 1301</td>
</tr>
<tr>
<td>History of the United States II</td>
<td>50</td>
<td>3</td>
<td>HIST 1302</td>
</tr>
<tr>
<td>Human Growth and Development</td>
<td>50</td>
<td>3</td>
<td>PSYC 2314</td>
</tr>
<tr>
<td>Introduction to Education Psychology</td>
<td>50</td>
<td>3</td>
<td>PSYC 1300</td>
</tr>
<tr>
<td>Introductory Psychology</td>
<td>50</td>
<td>3</td>
<td>PSYC 2301</td>
</tr>
<tr>
<td>Introductory Sociology</td>
<td>50</td>
<td>3</td>
<td>SOCI 1301</td>
</tr>
<tr>
<td>Principles of Macroeconomics</td>
<td>50</td>
<td>3</td>
<td>ECON 2301</td>
</tr>
<tr>
<td>Principles of Microeconomics</td>
<td>50</td>
<td>3</td>
<td>ECON 2302</td>
</tr>
<tr>
<td>Social Sciences and History</td>
<td>50</td>
<td>6</td>
<td>Lower-Level Elective(s)</td>
</tr>
<tr>
<td>Western Civilization I</td>
<td>50</td>
<td>3</td>
<td>HIST 2311</td>
</tr>
<tr>
<td>Western Civilization II</td>
<td>50</td>
<td>3</td>
<td>HIST 2312</td>
</tr>
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</table>

Science & Mathematics

<table>
<thead>
<tr>
<th>Exam Title</th>
<th>Min. Score Required</th>
<th>Semester Credit Hours</th>
<th>Equivalent Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>50</td>
<td>6</td>
<td>BIOL 1306; BIOL 1307</td>
</tr>
<tr>
<td>Calculus</td>
<td>50</td>
<td>4</td>
<td>MATH 2413</td>
</tr>
<tr>
<td>Chemistry</td>
<td>50</td>
<td>6</td>
<td>CHEM 1311; CHEM 1312</td>
</tr>
<tr>
<td>College Algebra</td>
<td>50</td>
<td>3</td>
<td>MATH 1314</td>
</tr>
<tr>
<td>College Mathematics</td>
<td>50</td>
<td>6</td>
<td>MATH 1332; Lower-Level Math Elective</td>
</tr>
<tr>
<td>Natural Science</td>
<td>50</td>
<td>6</td>
<td>PHYS 1315; PHYS 1317</td>
</tr>
<tr>
<td>Pre-Calculus</td>
<td>50</td>
<td>3</td>
<td>MATH 2312</td>
</tr>
</tbody>
</table>

World Languages

<table>
<thead>
<tr>
<th>Exam Title</th>
<th>Min. Score Required</th>
<th>Semester Credit Hours</th>
<th>Equivalent Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>French Language Level 1</td>
<td>50</td>
<td>6</td>
<td>FREN 1311; FREN 1312</td>
</tr>
<tr>
<td>French Language Level 2</td>
<td>59</td>
<td>9</td>
<td>FREN 1311; FREN 1312; FREN 2311</td>
</tr>
<tr>
<td>German Language Level 1</td>
<td>50</td>
<td>6</td>
<td>GERM 1311; GERM 1312</td>
</tr>
<tr>
<td>German Language Level 2</td>
<td>60</td>
<td>9</td>
<td>GERM 1311; GERM 1312; GERM 2311</td>
</tr>
<tr>
<td>Spanish Language Level 1</td>
<td>50</td>
<td>6</td>
<td>SPAN 1311; SPAN 1312</td>
</tr>
<tr>
<td>Spanish Language Level 2</td>
<td>63</td>
<td>9</td>
<td>SPAN 1311; SPAN 1312; SPAN 2311</td>
</tr>
</tbody>
</table>

ACT/SAT Subject Tests

Course credit may be awarded to students who score high on the ACT/SAT subject tests listed below.

<table>
<thead>
<tr>
<th>Exam Title</th>
<th>Min. Score Required</th>
<th>Semester Credit Hours</th>
<th>Equivalent Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACT Subject Test - English</td>
<td>28</td>
<td>3</td>
<td>ENGL 1301</td>
</tr>
<tr>
<td>SAT Subject Test - English (Prior to March 2016)</td>
<td>620</td>
<td>3</td>
<td>ENGL 1301</td>
</tr>
<tr>
<td>SAT Subject Test - English (March 2016 and forward)</td>
<td>480</td>
<td>3</td>
<td>ENGL 1301</td>
</tr>
<tr>
<td>ACT Subject Test - Math</td>
<td>24</td>
<td>3</td>
<td>MATH 1314</td>
</tr>
<tr>
<td>SAT Subject Test - Math (Prior to March 2016)</td>
<td>560</td>
<td>3</td>
<td>MATH 1314</td>
</tr>
<tr>
<td>SAT Subject Test - Math (March 2016 and forward)</td>
<td>530</td>
<td>3</td>
<td>MATH 1314</td>
</tr>
</tbody>
</table>

International Baccalaureate (IB)

In compliance with SB111, A&M-Central Texas offers at least 24 hours of credit to all IB diploma candidates with subject exam scores of 4 or higher. Students with IB certificates or courses are evaluated on a subject-by-subject basis upon receipt of an IB transcript.

<table>
<thead>
<tr>
<th>Exam Title</th>
<th>Min. Score Required</th>
<th>Semester Credit Hours</th>
<th>Equivalent Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology SL</td>
<td>4+</td>
<td>4</td>
<td>BIOL 1406</td>
</tr>
<tr>
<td>Biology HL</td>
<td>4+</td>
<td>8</td>
<td>BIOL 1406; BIOL 1407</td>
</tr>
<tr>
<td>Chemistry SL</td>
<td>4+</td>
<td>4</td>
<td>CHEM 1411</td>
</tr>
</tbody>
</table>

IB Credit and Course Equivalency Guide
### Life Experience Credit

A&M-Central Texas recognizes that each student has different educational needs, goals, and experiences. There are many areas where an individual’s skills and knowledge can be developed through vocational, military, and technical training; experiences accumulated in the workplace; as well as classes completed at other colleges and universities. A&M-Central Texas recognizes nontraditional learning experiences and may award college credit in cases where such credit is deemed appropriate.

Nontraditional learning experiences considered applicable toward a degree at A&M-Central Texas may include:

- Military Occupational Specialties (MOSs), ratings, Military Service Schools, and other Military Job Training and Experience as recommended by the American Council on Education (ACE).
- Vocational training acquired at a regionally or nationally accredited institution or recommended by ACE.
- Credit by examination for prior learning experience.

All students, including military and former military personnel, are eligible for credit consideration based on documentation of their prior learning experiences. While this credit may not be used for admission purposes, transfer students with life experience credit are encouraged to explore the following Bachelor of Applied Arts and Sciences degrees available at A&M-Central Texas.

### Bachelor of Applied Arts and Sciences Degrees

<table>
<thead>
<tr>
<th>Subject</th>
<th>Credits</th>
<th>Course Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemistry HL</td>
<td>4+</td>
<td>CHEM 1411, CHEM 1412</td>
</tr>
<tr>
<td>Economics SL</td>
<td>4+</td>
<td>ECON 2301</td>
</tr>
<tr>
<td>English SL or HL</td>
<td>4+</td>
<td>ENGL 1301, ENGL 1302</td>
</tr>
<tr>
<td>French SL or HL</td>
<td>4+</td>
<td>FREN 1411, FREN 1412</td>
</tr>
<tr>
<td>German SL or HL</td>
<td>4+</td>
<td>GERM 1411, GERM 1412</td>
</tr>
<tr>
<td>History SL or HL</td>
<td>4+</td>
<td>HIST 1301, HIST 1302</td>
</tr>
<tr>
<td>Music SL or HL</td>
<td>4+</td>
<td>MUSI 1311</td>
</tr>
<tr>
<td>Mathematical Studies SL</td>
<td>4+</td>
<td>MATH 1332</td>
</tr>
<tr>
<td>Mathematics SL</td>
<td>4+</td>
<td>MATH 1314</td>
</tr>
<tr>
<td>Mathematics HL</td>
<td>4+</td>
<td>MATH 2401</td>
</tr>
<tr>
<td>Philophysy</td>
<td>4+</td>
<td>PHIL 1301</td>
</tr>
<tr>
<td>Physics SL</td>
<td>4+</td>
<td>PHYS 1401</td>
</tr>
<tr>
<td>Physics HL</td>
<td>4+</td>
<td>PHYS 1401, PHYS 1402</td>
</tr>
<tr>
<td>Psychology SL or HL</td>
<td>4+</td>
<td>PHYC 2301</td>
</tr>
<tr>
<td>Social and Cultural Anthropology</td>
<td>4+</td>
<td>ANTH 2351</td>
</tr>
<tr>
<td>Spanish SL or HL</td>
<td>4+</td>
<td>SPAN 1411, SPAN 1412</td>
</tr>
<tr>
<td>Theater Arts SL or HL</td>
<td>4+</td>
<td>DRAM 1310</td>
</tr>
</tbody>
</table>

- Bachelor of Applied Arts and Science (http://catalog.tamuct.edu/undergraduate-programs/baas-business-management/) Degree in Business (p. 169)
- Bachelor of Applied Arts and Sciences Degree in Criminal Justice (p. 68)
- Bachelor of Applied Arts and Sciences Degree in Information Technology (p. 188)

Students with an Associate of Applied Science degree in Nursing (or comparable credential) are encouraged to consider the Bachelor of Science in Nursing, which is an RN to B.S.N (p. 130). program. Students with an Associate of Applied Degree in Aviation Science (or comparable credential) are encouraged to consider the Bachelor of Science in Aviation Science-Professional Pilot program (p. 91).

For additional information regarding the military credit evaluation process, please see the Military Transcripts and Credit Evaluation (p. 26) in the catalog.

### Registrar's Office

#### Mission

As an integral component of the Division of Enrollment Management, the Registrar’s Office exists to complement the educational goals of the university and the mission of the Division of Enrollment Management.

Staff in the Registrar’s Office develop and implement technical and operating procedures to ensure the integrity, confidentiality, and security of student records, and to provide accurate interpretations of Texas A&M University System policies and rules and A&M-Central Texas rules and procedures.

Staff in the Registrar’s Office provide the highest level of service to the university community with respect, honesty, and integrity.

### Undergraduate Academic Advising

Academic advisors and faculty advisors assist students by providing information and advice related to academic programs. This includes—but is not limited to—specific major requirements for graduation, course planning, insight into how majors and careers may fit together, and preparation for further education.

Students not yet enrolled at A&M-Central Texas may meet with an academic advisor to discuss how their previous coursework may be transferred and applied to their chosen degree. Prospective students are also eligible for A&M-Central Texas’s transfer program called Warrior Corps.

All newly admitted and readmitted students are required to meet with an academic advisor (located within each college)—either in person, online, or via telephone—before they will be permitted to enroll in courses. Students may schedule face-to-face or phone appointments with an academic advisor.

*All Social Work students should contact the department directly at (254) 519-5406 for any inquiries or to set up an advising appointment.*

Academic advisors are able to assist A&M-Central Texas students with the following:

- Declaration or change of major
- Course substitutions for the general education core
• Graduation applications
• Satisfactory Academic Progress (SAP) appeals (related to financial aid eligibility)
• Consortium Agreements (related to financial aid)
• Degree mapping/course planning
• Class selection
• Grade Point Average (GPA) issues
• The transferability and applicability of courses taken at other institutions
• Other general questions related to academic requirements

Degree Plan Information

All newly admitted undergraduate students must file a Degree Acknowledgement Form (DAF) before registration. Initial degree plans are filed during the student's first academic advising meeting after admission to the university. Once the DAF has been completed by the advisor, the advising hold will be lifted and the student can register for classes. Students are encouraged to take courses that fit within their degree plan to avoid excess hours.

A degree plan revised by a student after the census date for a term will be updated effective the subsequent term.

1. MAJOR
   a. A minimum of 24 semester credit hours (SCH) within the field of study is required for a major, of which at least 12 SCH must be in upper-level courses.
   b. A double major requires that a degree plan be filed for each major. A student may declare no more than two majors. A minimum of 24 distinct semester credit hours (SCH) within each field of study are required for each major; therefore, some degrees may not support double majors. Please refer to the degree program overview pages for any exclusions.

2. MINOR
   a. A minor is an organized curriculum that is offered as part of a baccalaureate degree plan and enhances or complements the degree to be awarded in a manner that leads to specific educational or occupational goals. A minor in a baccalaureate degree consists of at least 18 SCH, of which at least 6 hours must be at the junior- or senior-level. Some minors require specific coursework. Please refer to the "Minors" section of the undergraduate catalog for more information.
   b. Sociology and Liberal Studies require the declaration of a minor; for all other undergraduate programs, the selection of a minor is optional. Certain baccalaureate degree plans have restrictions as to which minors may be pursued or whether a minor may be pursued at all. If a minor is desired, it must be declared on the DAF. A student may declare no more than two minors, with the exception of Liberal Studies, where three minors are required.

3. DEVELOPMENTAL/REMEDIAL COURSES needed as preparation for college-level coursework cannot be applied as degree plan contents.

4. CREDIT HOUR REQUIREMENTS
   a. All baccalaureate degrees require a minimum of 120 SCH. If a student declares two majors in the same degree (e.g., B.S. Psychology and B.S. Sociology) all requirements for both programs must be fulfilled, though the minimum remains 120 SCH.
   b. Students who declare two degrees (e.g., B.A. English and B.S. Psychology) must fulfill all degree requirements for both programs and complete a minimum of 150 SCH before the degrees will be simultaneously conferred. At least 12 hours of 3000- and 4000-level course work must be completed in each field of study.
   c. A student pursuing a second baccalaureate degree must complete all university, college, and department/curricular requirements for the subsequent degree not covered in the first degree. In all cases, the total semester credit hours required must be at least 30 additional hours applicable to the subsequent degree. At least 12 hours of 3000- and 4000-level course work must be completed in each field of study.
   d. All baccalaureate degrees require a minimum of 45 SCH of upper-level credit hours, except for the B.A.A.S. Business Management (42 credit hours) and B.S.N. (30 credit hours) programs.

5. SPECIAL CONSIDERATIONS
   a. A student may count not more than 6 SCH of physical education credits toward their degree.

Undergraduate Grading System

Final grades in all courses will be available at the end of each semester on Warrior Web. Students can view and print copies of their final grades on Warrior Web. The undergraduate student's term grade in any subject shall be designated as one of the following letters:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent, 4 quality points per semester hour</td>
</tr>
<tr>
<td>B</td>
<td>Good, 3 quality points per semester hour</td>
</tr>
<tr>
<td>C</td>
<td>Fair, 2 quality points per semester hour</td>
</tr>
<tr>
<td>D</td>
<td>Passing, 1 quality point per semester hour</td>
</tr>
<tr>
<td>F</td>
<td>Failing, 0 quality points per semester hour</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete (under exceptional circumstances, see below)</td>
</tr>
<tr>
<td>Q</td>
<td>Withdrawal from course, no grade designated</td>
</tr>
<tr>
<td>W</td>
<td>Withdrawal from university, no grade designated</td>
</tr>
<tr>
<td>WF</td>
<td>Withdrawal failing from university (included in GPA)</td>
</tr>
<tr>
<td>P</td>
<td>Pass</td>
</tr>
<tr>
<td>S</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>U</td>
<td>Unsatisfactory</td>
</tr>
<tr>
<td>N</td>
<td>Not Graded/ No Grade Reported</td>
</tr>
<tr>
<td>AU</td>
<td>Course Audit, no grade assigned</td>
</tr>
</tbody>
</table>

The lowest passing grade is a "D." Students should consider that some universities and colleges do not accept a "D" in transfer.

If a course is taken at A&M-Central Texas and repeated at this institution, only the best grade in the course is counted in computing the GPA.

The grade "I" shall be recorded for a student only in the case of extraordinary circumstances. This entry is used rarely when the instructor and his/her department chair have concurred that the incomplete entry is justified. A grade of "I" must be made up by the last day that course grades are due to the Registrar 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 within the prescribed time limit, it automatically becomes an "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.

Grade Point Average
The grade point average (GPA) is obtained by dividing the total number of quality points earned by the total number of semester hours included for quality points.

Semester credit hour
A lecture course which meets one hour per week for 15 weeks is worth 1 semester credit hour. Thus, a course worth 3 semester credit hours meets three hours per week. Credit hours for laboratory courses are determined to be some fraction of the number of hours spent in class.

For further information, visit Texas A&M University-Central Texas Rule – Definition of a Credit Hour – 11.03.99.M4, which complies with The Texas Higher Education Coordinating Board definition of minimum course lengths as part of the Texas Administrative Code Title 19, Part 1, Chapter 4, Rule 4.6, “Minimum Length of Courses and Limitation on the Amount of Credit that a Student May Earn in a Given Time Period.”

Grade Forgiveness
Grade Forgiveness is available to A&M-Central Texas undergraduate courses starting with the Spring 2013 term, and thereafter. This applies only to courses taken with A&M-Central Texas.

Grades received for any one entire semester of coursework taken at A&M-Central Texas, more than five (5) years before a student’s current enrollment at A&M-Central Texas, may be excluded for computation in the total grade point average (GPA). This option may be exercised one time only.

Students who wish to exercise this option must contact their academic advisor to determine the effect on completion of degree requirements. The academic advisor will initiate the request on the student’s behalf to the Associate Provost and Senior Associate Vice President for Academic Affairs. Once reviewed and approved, the Registrar’s Office will exclude coursework from the student’s GPA calculation.

When a student has exercised the forgiveness option, grades for the semester selected by the student will be excluded in computing the total institution and overall GPA. All courses and grades will continue to appear on the student’s transcript. These courses and grades will be counted toward restrictions in total number of withdrawals, as well as calculations of fees for repeated courses and fees resulting from excess hours beyond the degree. In applying the option, all grades from the chosen semester are excluded from the GPA calculation, not just low or failing grades. Also, no classes taken in the semester being forgiven may be counted on the student’s degree plan. A student may not receive Grade Forgiveness if a degree has been awarded. A student seeking to exercise this option must be enrolled at A&M-Central Texas at the time he/she requests the forgiveness option.

The GPA calculation with Grade Forgiveness is used for academic purposes only. GPA calculations used in Student Financial Assistance will include the excluded grades.

Funding Limit and 3-Peat Rules

Undergraduate Funding Limit Rules
Texas Education Code § 54.014 provides a limit to the number of hours an undergraduate Texas resident may attempt while paying in-state tuition rates. This legislation impacts new undergraduate students enrolling in a Texas state institution of higher education in fall 1999 or thereafter. Students who exceed the limit of attempted hours could be charged tuition not to exceed that of out-of-state tuition rates. A&M-Central Texas adopted a fee of $100 per credit hour for students who exceed attempted hours under the Undergraduate Funding Limit Rule.

If you are a Texas resident who enrolled in any Texas state institution of higher education BEFORE 1999, you are exempt from the Undergraduate Funding Limit Rule.

If you are a Texas resident who enrolled in any Texas state institution of higher education for the first time in fall 1999 or later, the following provisions apply to you:

45-Hour Rule
New undergraduate students who started fall 1999 through summer 2006 and attempt 45 or more semester credit hours beyond the hours required to complete their degree will be charged an additional $100 per credit hour for these excess hours. Any student who is being charged additional tuition rates under the 45-hour rule and who wishes to appeal must file an appeal for each applicable semester. The appeal form and procedures may be obtained by contacting the Registrar’s Office.

30-Hour Rule
New undergraduate students who started fall 2006 and thereafter and attempt 30 or more semester credit hours beyond the hours required to complete their degree will be charged an additional $100 per credit hour for these excess hours. Students who have not selected a major are considered, by state law, to have a degree requirement of 120 hours.

Please note that all hours in which a student was enrolled at any Texas state institution of higher education, community college, or four-year institution, are counted toward the 45 or 30 semester credit hour cap, whether or not the hours are accepted for transfer at A&M-Central Texas.

Texas Education Code § 61.0595 has the following as not counted towards the Undergraduate Funding Limit Rule.

1. semester credit hours earned by the student 10 or more years before the date the student begins the new degree program under Section 51.931 are not counted for purposes of determining whether the student has previously earned the number of semester credit hours;
2. semester credit hours earned by the student before receiving a baccalaureate degree that has previously been awarded to the student;
3. semester credit hours earned by the student by examination or under any other procedure by which credit is earned without registering for a course for which tuition is charged;
4. credit for a remedial education course, a technical course, a workforce education course funded according to contact hours, or another course that does not count toward a degree program at the institution;
5. semester credit hours earned by the student at a private institution or an out-of-state institution;
6. semester credit hours earned by the student before graduating from high school and used to satisfy high school graduation requirements; and
7. the first additional 15 semester credit hours earned toward a degree program by a student who:
   a. has re-enrolled at an institution of higher education following a break in enrollment from the institution or another institution of higher education covering the 24-month period preceding the first class day of the initial semester or other academic term of the student’s re-enrollment; and
   b. successfully completed at least 50 semester credit hours of coursework at an institution of higher education before that break in enrollment.

3-Peat Rule
Effective fall 2002, Texas Higher Education Coordinating Board (THECB) Rules (Chapter 13, Subchapter B, § 13.25) provide a limit to the number of times that a student may attempt a particular course. A student attempting a non-repeatable course more than two times at A&M-Central Texas will be subject to an additional fee of $100 per credit hour for the repeated course, in addition to the in-state tuition rate. This rule includes not only courses completed more than two times, but also courses the student dropped or from which the student withdrew after the official semester census date.

6-Drop Rule
Beginning with the fall 2007 academic term, and applying to all students who enroll in higher education for the first time during the fall 2007 academic term or any term subsequent to the fall 2007 term, an institution of higher education may not permit an undergraduate student a total of more than six dropped courses. This includes courses dropped at another two- or four-year Texas public college or university (S.B. 2183, 80th Regular Session, Texas Legislature; THECB Regulation, Chapter 4, Section 4.10(a)). Once a student has accumulated six (Q) drops, the student will no longer be eligible to drop additional courses.

Effective with the 2018 fall semester, S.B. 1782 amended the Education Code to allow students to drop one additional course under certain circumstances.

1. The student has re-enrolled at the institution following a break in enrollment from the institution or another institution of higher education covering the 24-month period preceding the first class day of the initial semester or other academic term of the student's re-enrollment; and
2. successfully completed at least 50 semester credit hours of coursework at an institution of higher education before that break in enrollment.

Academic Standing
Undergraduate Students
The following policies apply to all undergraduate students unless more restrictive rules are included as part of special admission conditions or 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 his or her course of study. Early notification of this concern maximizes the student’s opportunity to make appropriate adjustments to remain in good standing. A 2.0 total institutional GPA is the lowest acceptable academic standard. The total institutional GPA used in this policy is defined as the best attempt on each course taken at A&M-Central Texas; transfer coursework does not affect academic standing. A student with a 2.0 or higher total institutional GPA is considered to be in good standing.

Reapplication and readmission to the University does not affect academic standing, except in the case where a student is suspended and reapplies after sitting out the required time. Upon readmission and academic advising, the student’s academic standing will be changed to Academic Warning. Students are responsible for knowing their academic standing and the regulations that apply. Students who do not abide by the regulations governing their particular status may be required to reduce their academic load or withdraw from the University.

Good Standing
A new student, or a student who maintains a total institutional GPA between 2.00 and 4.00 is considered to be in good academic standing.

Academic Warning
A student in good standing who earns a total institutional GPA between 1.00 and 1.99 at the end of any fall or spring semester will be placed on academic warning. This status will not prevent the student from taking courses during the subsequent semester.

Academic Probation
A student on academic warning who maintains a total institutional GPA between 1.00 and 1.99 at the end of the subsequent fall or spring semester will be placed on academic probation. This status will not prevent the student from taking courses during the subsequent semester.

Academic Suspension
A student who earns below a 1.00 total institutional GPA at the end of a fall or spring semester, or a student on academic probation who earns less than a 2.00 total institutional GPA at the end of the next fall or spring semester will be suspended. This status will prevent future registrations.

Suspension Notification Process
At the end of each fall and spring semester, the student’s academic college will notify suspended students of their status, and explain the provisions for appeal. The notice serves as official documentation to ensure the student has been properly informed of their academic standing with the University.

Length of Suspension
First suspension – one long semester (fall or spring)
Second suspension – one calendar year
Third suspension – three calendar years

Academic Suspension Appeal Process for Undergraduates
A student who has not served the requisite length of suspension and wishes to request a waiver of the suspension term may appeal to the college dean in charge of the student’s academic program to forego the suspension and continue enrollment. The student must first contact their college academic advisor and compose an appeal letter addressing each of the following:
• A summary of the situation which resulted in poor academic performance and ultimate suspension;
• A justification for why the student should not be required to serve the term of suspension; and
• A plan for how the student will ensure success in the next term if the appeal request is granted.

The final decision for all suspension appeals lies within the college.

Appeals are only finalized when the student and authorized official have signed the Contract for Conditional Enrollment.

Students who meet the terms of their contract will be permitted to continue enrollment with specific stipulations and courses, but must request a Contract for Conditional Enrollment each semester until they achieve good standing.

**Academic Reinstatement after Suspension for Undergraduates**

A student who is suspended from A&M-Central Texas is advised not to take college courses at any institution during the term of suspension. Any student who takes transferable college level courses during the term of suspension must meet A&M-Central Texas transfer requirements in order to be readmitted and will be on academic warning the first long semester back at A&M-Central Texas. A student who is suspended from A&M-Central Texas and does not take transferable college level courses during the term of suspension may return to A&M-Central Texas after the term of the suspension and will be on academic warning the first long semester back at A&M-Central Texas.

**Academic Appeals Procedure**

A student's final course grade is based upon the grading policies, procedures, and criteria stated in the course syllabus distributed at the beginning of the semester by the course instructor. The syllabus shall include the basis for calculation of grades, including weights as applicable for tests, laboratory assignments, field study work, projects, papers, homework, class attendance and participation and other graded activities.

Normally a student's concern over a final course grade can be handled informally between the student and the instructor of the course. If the issue cannot be satisfactorily resolved between the student and the instructor, then the student may request a grade appeal using the procedure outlined below.

The original grade will stand in the student's university record until the appeals process is concluded.

1. A final grade can only be appealed under one or more of the following conditions:
   a. A clerical/computational error was made in calculating/reporting the grade.
   b. The grading decision was made on some basis other than academic performance and other than as a penalty for academic misconduct.
   c. The grading procedure employed was arbitrary and departed substantially from accepted academic norms or is at variance with the course syllabus.
   d. The grade was not determined using the same process applied to other students in the course.

2. A student who wishes to appeal a final course grade must submit a written grade appeal request to the course faculty member at their official university email address within 30 calendar days of the date that final course grades were posted. The written appeal must contain all of the information necessary to render a decision. The written grade appeal must include the following information:
   a. Student name, address, student’s university email, telephone number and Warrior Identification Number
   b. Course name, CRN, prefix/number and semester/year class taken
   c. Name of faculty member assigned to the course
   d. A clear statement of the grade change being requested and the justification for the request
   e. Attach additional evidence that supports the grade appeal. This may include items such as personal grade records, copies of graded work, email communication with the faculty member, or comparisons of own work to the work of other students.

3. The faculty member is expected to provide the student a written decision (by the student's university email or by certified mail) within 20 business days. If the student is dissatisfied with the decision or does not receive a response from the faculty member within 20 business days, he/she may submit the grade appeal to the department chair. In the rare case that there is not a department chair or if the faculty member is the department chair, then the written appeal should be sent directly to the dean of the college.

4. The department chair is expected to provide the student a written decision (by student's university email or by certified mail) within 10 business days.

5. A student dissatisfied with the department chair’s decision may submit the appeal in writing to the college's dean. The college dean will give the grade appeal to the College Academic Appeals Committee for review. The Academic Appeals Committee consists of three faculty members from the college; each college is responsible for developing a specific and unbiased committee structure. After considering all aspects of the incident, the committee will render a recommendation to the academic dean. The decision of the academic dean is final and will be communicated to the student in writing within 20 business days.

A request for deviating from the grade appeal timeline must be approved by the dean of the college and the student must be notified in writing of the change in appeal timeline.

Any question of interpretation or application of the Academic Grade Appeals Procedure shall be referred to the Office of the Provost.

Any question of interpretation or application of the college procedure shall be referred to the dean of the college.

**Academic Honesty**

A&M-Central Texas values the integrity of the academic enterprise and expects its students, faculty, and staff to adhere to the highest standards of personal and scholarly conduct to preserve the highest standards of academic conduct, honor, and integrity of the creative community. Ignorance of our standards and expectations is not an acceptable excuse.
for disobeying them. Any violation of the Honor Code of Academic Honesty shall also be considered a violation of the A&M-Central Texas Code of Student Conduct. Integrity is integral to support the adherence to high standards of personal and scholarly conduct to preserve the honor and integrity of the creative community. work. Though we believe in a community approach, we want to emphasize that students’ Collaboration and community are valued at A&M-Central Texas; however, student responsibilities include, but are not limited to, maintaining integrity in their own individual academic work, reporting incidents of academic misconduct to the instructor involved, and to be educated on these to instructors, and learning academic community standards. Ignorance of our standards and expectations is never an excuse to act with a lack of integrity. Any violation of the Honor Code of Academic Integrity shall also be considered a violation of the A&M-Central Texas Code of Student Conduct.

What is Academic Integrity?
Integrity is integral to scholarly work. The Center for Academic Integrity defines academic integrity as a “commitment, even in the face of adversity, to five fundamental values: honesty, trust, fairness, respect, and responsibility.” The excellence we, as an academic community, strive for is bound fundamentally to these values. Academic misconduct is any act that improperly affects a true and honest evaluation of a student’s academic performance. Misconduct may occur when the student acts knowingly or should reasonably know that the act is misconduct.

What is Academic Work?
Academic work is defined as all work submitted for any course or program and all academic activities such as enrollment and withdrawal from a class. All academic work at A&M-Central Texas is expected to be submitted with integrity and uncompromising adherence to the standards described below.

Honor Code
A&M-Central Texas’ Code of Academic Integrity is founded on a shared code of honor within our university community.

“I pledge to pursue my academic endeavors with honor, integrity, and responsibility, I will present my own work authentically and join my peers in supporting a community built on honor. I understand the principles of the Honor Code of Academic Integrity, and I promise to uphold these standards by adhering to the Code in order to preserve the integrity of A&M-Central Texas and its community.”

Academic Integrity Rules
For a complete listing of the Code of Academic Integrity and Student Rules, students should visit: https://www.tamuct.edu/student-affairs/student-conduct.html

Reporting Misconduct
A&M-Central Texas sees integrity as the cornerstone of our mutual learning endeavor and we all share responsibility in upholding our integrity. As such, the entire university community – not just instructors – can report academic misconduct. Students, faculty, and staff, can report academic misconduct concerns at https://www.tamuct.edu/student-affairs/student-conduct.html. When the Division of Student Affairs receives a report of academic misconduct that was not initiated by an instructor, the instructor of record will be notified of the report. For questions on reporting or interpretation of this Code, contact the Division of Student Affairs at 254-501-5909.

Appeal Procedure
Students who wish to appeal the outcome of their student conduct hearing must follow the appeals procedure outlined in the Code of Student Conduct (https://www.tamuct.edu/student-affairs/student-conduct.html).

Students wishing to appeal the grade assigned by an instructor must follow the grade appeal procedure (p. 44) outlined in the A&M-Central Texas Academic Catalog.

Audit Policy
A student may audit regular academic courses, provided space and required instructional equipment are available. A student may not audit regular academic courses offered online or on an independent-study basis. No credit is granted, no examinations are required, and no grades are reported for an auditing student. Attendance requirements, class preparation, and class participation are at the discretion of the instructor.

Submission of a completed Course Audit Request Form and payment of required fees must occur prior to the registration deadline. Required fees include the audit fee and applicable course-related fees (i.e. lab, materials, field, etc.) as determined by the institution. Fees associated with a course audit are nonrefundable unless the institution denies the audit request.

Graduation under a Particular Catalog
Both graduate and undergraduate students must meet the program requirements listed in the catalog governing the first semester in which they enrolled in residence as a degree-seeking student. If the student has not enrolled in the university in the past six years, he or she must meet program requirements and policy statements in the catalog in effect at the time of re-entry as a degree-seeking student. The student may also choose to graduate under any catalog published subsequent to the time of re-entry. The option to graduate under older catalog editions depends upon whether the university still offers programs and courses listed in the older catalog. Only with special approval may a student graduate under the requirements of a catalog issued over six years prior to the student’s date of graduation. The university grants this permission in rare cases where extenuating circumstances exist and extreme hardship may result. The appropriate dean may authorize a limited extension.

Note: Any person who has completed their first degree at A&M-Central Texas and re-enters to seek a second degree will be listed under the catalog in effect at the time of entry to seek the second degree or any subsequent catalog. The student may also choose to graduate under any catalog published subsequent to the time of re-entry. The option to graduate under older catalog editions depends upon whether the university still offers programs and courses listed in the older catalog. Only with special approval may a student graduate under the requirements of a catalog issued over six years prior to the student’s date of graduation. The university grants this permission in rare cases where extenuating circumstances exist and extreme hardship may result. The appropriate dean may authorize a limited extension.

Financial Obligation for Graduating Students
According to Texas Education Code § 54.007 (d), all financial obligations to the university must be paid by the end of the semester. Failure to settle all financial obligations will result in withholding a student's diploma at graduation. Additionally, a block will be placed on the student’s account which will prohibit registration in subsequent semesters and receipt of official transcripts.

Citations
• Texas Education Code § 54.007 (d) states “A student who fails to make payment prior to the end of the semester may be denied credit for the work done that semester.”

Class Attendance

The university strongly encourages class attendance and participation as a means to acquire knowledge but does not maintain an institution-wide attendance policy. Faculty members are responsible for establishing the attendance and participation policy for each course and outlining if and when make-up work will be accepted. Notification of attendance and participation requirements should be available at the start of each semester via the course syllabus. Students may request make-up consideration for valid and verifiable reasons, such as illness, death in the immediate family, legal proceedings, or participation in university-sponsored activities. Students participating in university-sponsored activities are responsible for obtaining a written explanation for their absence from the faculty/staff member responsible for the activity. In all cases, students are encouraged to notify the faculty member of the course(s) in advance of any absence. Faculty are required to submit initial attendance verification to the Registrar’s Office by the census date for each part of term. Failure to attend or participate in a course may also negatively affect a student’s financial aid eligibility.

Important information for Pregnant and/or Parenting Students

A&M-Central Texas supports students who are pregnant and/or parenting. In accordance with requirements of Title IX and related guidance from US Department of Education’s Office of Civil Rights, the Dean of Student Affairs’ Office can assist students who are pregnant and/or parenting in seeking accommodations related to pregnancy and/or parenting. Students should seek out assistance as early in the pregnancy as possible. For more information, please visit the Student Affairs (https://www.tamuct.edu/student-affairs/) web page. Students may also contact the institution’s Title IX Coordinator. If you would like to read more about these requirements and guidelines online, please visit the website https://www2.ed.gov/about/offices/list/ocr/docs/dcl-know-rights-201306-title-ix.html.

Title IX of the Education Amendments Act of 1972 prohibits discrimination on the basis of sex and gender—including pregnancy, parenting, and all related conditions. A&M-Central Texas is able to provide flexible and individualized reasonable accommodation to pregnant and parenting students. All pregnant and parenting students should contact the Associate Dean in the Division of Student Affairs at (254) 501-5909 to seek out assistance. Students may also contact the University’s Title IX Coordinator.

Concurrent Enrollment at Other Institutions

Students that may need to complete course work by concurrent enrollment at another college or university during the same semester may request permission for concurrent enrollment through regular academic channels (academic advisor, department chair, or the academic dean).

If permission is granted, such credit hours earned may be applied toward degree requirements at A&M-Central Texas. Courses completed without such approval may not apply toward degree requirements.

Written permission from the department chair or the academic dean is required prior to concurrent enrollment in extension coursework or in any resident courses from other institutions. Course load limits are not waived for students seeking concurrent enrollment, and must be approved through the appropriate channels.

Student Course Load

Undergraduate

<table>
<thead>
<tr>
<th>Semester Hours</th>
<th>16 week (Fall/ Spring)</th>
<th>10 week (Summer)</th>
<th>8 week session</th>
<th>5 week session</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max Load</td>
<td>18 hours</td>
<td>12 hours</td>
<td>9 hours</td>
<td>6 hours</td>
</tr>
<tr>
<td>Full Load</td>
<td>12 hours</td>
<td>7 hours</td>
<td>6 hours</td>
<td>4 hours</td>
</tr>
</tbody>
</table>

Enrollment Status Descriptions for Financial Aid: For financial aid purposes, enrollment requirements are the same for every semester (Fall, Spring, and Summer). Undergraduates must be enrolled in at least 12 undergraduate credit hours to be considered full-time, 9 to 11 undergraduate credit hours to be considered three-fourths time, and 6 to 8 undergraduate credit hours to be considered half-time.

Loads in excess of the maximum require approval by your program department chair. Loads in excess of 21 hours require approval from the Provost.

Holds on Registration and Release of Records

The university reserves the right to place holds on student records when obligations to the university have not been met. Obligations may include, but are not limited to, academic advising, outstanding account balances, incomplete admissions documentation, library fines, parking fines, etc. Holds may restrict a student’s ability to register for courses, obtain transcripts, obtain a diploma, and/or other university-related activities.

Financial Obligation for Graduating Students

According to Texas Education Code § 54.007 (c), all financial obligations to the university must be paid by the end of the semester. Failure to settle all financial obligations will result in withholding a student’s diploma at graduation. Additionally, a block will be placed on the student’s account which will prohibit registration in subsequent semesters and receipt of official transcripts.

Citations

• Texas Education Code § 54.007 (c) states “A student who fails to make payment prior to the end of the semester may be denied credit for the work done that semester.”

Drops and Withdrawals

Dropping a Course

A course drop occurs when a student notifies the institution they wish to cease enrollment in one or more courses while remaining enrolled in at least one course at the institution during the same semester. A student who wishes to drop a course(s) must submit a completed Drop Request Form to the Registrar’s Office. The effective course drop date is the date the form is received by the Registrar’s Office. A student who drops a course(s) after census date and on or prior to the last date to drop course(s) will receive a grade of Q. A student who ceases participation in a course(s) but fails to officially drop prior to the last date to drop a course will be assigned a grade by the instructor of record. The official...
census date and the last date to drop a course(s) are listed in the chart below and are available on the university calendar.

Faculty cannot drop students; this is always the responsibility of the student. The Registrar’s Office will provide a deadline on the Academic Calendar for which the form must be completed, signed and returned. Should the student miss the deadline or fail to follow the procedure, you will receive an F in the course, which may affect your financial aid and/or Veterans educational benefits.

Undergraduate students are limited to the number of courses they may drop in their undergraduate academic career. Please refer to Undergraduate Funding Limit and 3-Peat Rules for information on the 6-Drop Limit for information and exclusions. Withdrawals from the university do not count towards the 6-Drop Limit.

Withdrawal from the University

An official withdrawal occurs when a student notifies the institution they wish to cease enrollment in all courses during a specific semester. A student who wishes to withdraw must submit a completed Official Withdrawal Request Form to the Registrar’s Office. The effective date of the withdrawal is the date the form is received by the Registrar’s Office. Faculty will be required to submit a “last date of attendance”, which will be the last date of class participation. A student who withdraws after census date or on or prior to the last date to withdraw will receive a grade of W in all courses. A student who withdraws after the last date to withdraw with a W grade will receive a WF grade for all courses. A student receiving a WF grade may appeal to the instructor for a change to withdraw with a W grade will receive a WF grade for all courses. A student who withdraws after the last date to withdraw with a W grade will receive a WF grade for all courses. A student receiving a WF grade may appeal to the instructor for a change to withdrew with a W grade.

A student receiving a WF grade may appeal to the instructor for a change to withdrew with a W grade. A student who withdraws after the last date to withdraw with a W grade will receive an F in the course, which may affect your financial aid and/or Veterans educational benefits.

Scholastic Honors

Eligibility for Honors Graduation

Institutional honors are awarded only for undergraduate, A&M-Central Texas coursework. To be eligible for honors graduation, a student must earn no fewer than 45 Semester Credit Hour (SCH) at A&M-Central Texas.

Individuals earning degrees with fewer than 45 SCH from A&M-Central Texas must meet the following criteria based on all credits for their degree plan, including core courses taken at other institutions [i.e. Bachelor of Applied Arts and Sciences (B.A.A.S.), and Bachelor of Science in Nursing (B.S.N.)].

Honors graduates will be recognized as follows:

- 3.90 - 4.00 GPA - Summa Cum Laude (Highest Honors)
- 3.70 - 3.89 GPA - Magna Cum Laude (High Honors)
- 3.60 - 3.69 GPA - Cum Laude (Honors)

Announcement of honors during commencement does not ensure the student will be awarded institutional honors on the diploma. Students must achieve the above-defined GPA after all final grades are posted for the semester in which the student is graduating.

Graduate students are not eligible for institutional honors.

Student Classifications

Undergraduate students are classified on the basis of semester credit hours earned, not credit hours attempted. The following classification scale applies to all students regardless of enrollment date:

<table>
<thead>
<tr>
<th>Classification</th>
<th>Semester Credit Hours Earned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>0–29</td>
</tr>
<tr>
<td>Sophomore</td>
<td>30–59</td>
</tr>
<tr>
<td>Junior</td>
<td>60–89</td>
</tr>
<tr>
<td>Senior</td>
<td>90 or more</td>
</tr>
<tr>
<td>Post-Baccalaureate</td>
<td>Holds a baccalaureate degree but is not admitted for graduate degree</td>
</tr>
<tr>
<td>Graduate</td>
<td>Holds a baccalaureate degree and is pursuing a graduate degree</td>
</tr>
</tbody>
</table>

Tuition Rebate

Certain undergraduate students who meet all of the state mandated requirements may be entitled to a tuition rebate, up to $1,000, upon completion of their first baccalaureate degree.

A student may apply for the tuition rebate by submitting a completed Tuition Rebate form (https://www.tamuct.edu/registrar/docs/TuitionRebate.pdf) to the Registrar's Office PRIOR to the application deadline as published in the academic calendar. Students will not be able to apply for the tuition rebate until a graduation application has been submitted.

Eligibility Requirements:

- First college course after high school graduation must be taken in fall 1997 or later;
- Student must have been a Texas resident at all times while pursuing the degree;
• Student must have been entitled to pay in-state tuition at all times while pursuing the degree; and
• Student must not have graduated yet.

Key eligibility requirements:

A student may qualify for the tuition rebate (up to $1000) if:

• for a student who enrolled after high school graduation at a college or university for the first time in fall 1997 or later, s/he has attempted no more than three semester credit hours in excess of the minimum number of hours required for their degree. For example, a student who completes a bachelor's degree that requires 120 credit hours with no more than 123 credit hours attempted might qualify for this rebate; and
• for a student who enrolled after high school graduation at a college or university for the first time in fall 2005 or later, s/he must also graduate in a timely manner to earn the tuition rebate. According to the most recent revision of the rebate program, a student who wants to receive the rebate must graduate within four calendar years for a four-year degree program or within five calendar years "if the degree is in architecture, engineering or any other program determined by the Board to require more than four years to complete." Currently the Board has not identified any other five-year degree programs.

Detailed information regarding requirements to qualify for the tuition rebate can be found at the College for All Texans website (http://www.collegeforalltexas.org/apps/financialaid/tofa2.cfm?ID=447). The amount of tuition to be rebated to students under this program will be based on state guidelines.

If a student entitled to a rebate has an outstanding balance owed to the university or to student loans, the university shall apply the amount of the rebate to the balances owed. If the amount of the rebate exceeds the amount of the indebtedness, the university shall pay the student the excess amount. Additional information is available from the Registrar's Office.

RELLIS Campus

The RELLIS Campus is the newest model of higher education in Texas, bringing several regional universities and Blinn College to one location in Bryan, Texas. The RELLIS Academic Alliance allows multiple institutions within The Texas A&M University System and Blinn College to collaboratively offer selective degree and certificate programs. This paves the way for an innovative education concept, allowing students to obtain bachelor's degrees from Texas A&M System's 10 regional universities from around the state without leaving the Bryan campus.

For more information about Texas A&M-Central Texas RELLIS Campus contact:
College of Business Administration Advising
B.A.A.S. in Business Administration
Founder's Hall, Room 217
Killeen, TX 76549
Phone: (254) 519-5467

RELLIS campus location
3100 TX-47
Bryan, TX 77807
Phone:(979) 458-6037
Website: https://rellis.tamus.edu

Note: Admissions, financial aid, and other enrollment services are offered online through the main campus or in person in Killeen, TX, while student support and campus life services (i.e., academic support, career services, student activities and organizations, campus recreation, etc.) are offered through the RELLIS campus.
Requirements for a Baccalaureate Degree

General Requirements
The following general requirements for graduating with a baccalaureate degree must be met by all students. Additional requirements may exist for individual programs. The final responsibility for meeting all degree requirements rests with the student.

1. Students must satisfactorily complete 120 credit hours of degree applicable coursework. Higher credit hour requirements may exist for individual programs.

2. Students must earn a minimum institutional GPA of 2.00 in all coursework taken at A&M-Central Texas, and a minimum cumulative GPA of 2.00 in all coursework, including coursework transferred from another institution. The student must also be in good academic standing with the university.

3. Students must satisfactorily complete at least 45 credit hours of upper-level (junior and senior) coursework. The following programs incorporate a high volume of technical/vocational (Workforce Education) and have a reduced upper-level credit minimum: Aviation Science (B.S.) – 43 credit hours; Business Management (B.A.A.S.) – 42 credit hours; and Nursing (B.S.N.) – 30 credit hours.

Institutional Residency Requirements
Residency is satisfied only by official enrollment in and satisfactory completion of coursework at A&M-Central Texas applicable toward degree requirements.

1. A minimum of 25% of coursework required for the degree must be completed with A&M-Central Texas (i.e. 30 hours of a degree that requires 120 hours). The work completed at A&M-Central Texas and counted toward the degree must include at least 24 upper-level hours (3000 or 4000 level courses), and 12 of these advanced hours must be in the subject in which the student intends to major.

2. A maximum of 68 semester hours of academic credit will be accepted for degree credit from a two-year institution, unless otherwise approved.

Writing Instructive Program
To satisfy this requirement, students must have credit for four writing instructive (WI) courses. Two of these four courses must be upper-level institutional WI courses within the major or designed for the degree plan. The remaining WI requirement should be met through Communication core component area general education courses.

Application for Degree
A candidate for a degree must apply for the degree by submitting an "Application for Graduation" online through WarriorWeb to the Registrar's Office no later than the deadline for submission of the application for graduation, as specified in the university calendar. Deadlines for submitting an application for graduation are strictly enforced. A $50 graduation application processing fee is required at the time the application is submitted. Students who miss the Late Application Deadline will be charged a $20 late fee and will be eligible for conferral only. Students failing to meet degree requirements in the semester in which they have applied to graduate must reapply and re-pay the graduation application processing fee for the next semester.

Financial Obligation for Graduating Students
According to Chapter § 54.007 (d) of the Texas Education Code, all financial obligations to the University must be paid by the end of the semester. Failure to settle all financial obligations will result in withholding a student's diploma at graduation. Additionally, a block will be placed on the student's account which will prohibit registration in subsequent semesters and receipt of official transcripts.

Citations

• Chapter § 54.007 (d) of the Texas Education Code states “A student who fails to make payment prior to the end of the semester may be denied credit for the work done that semester.”

Undergraduate Programs
A&M-Central Texas welcomes interest from eligible undergraduate students throughout the year.

Visit the How to Apply (p. 23) web page to begin.

All programs listed provide general guidelines for semester coursework; speak with a college advisor for an individualized student education plan.

A&M-Central Texas offers the following undergraduate degrees and minors:

College of Arts and Sciences

BACHELOR OF ARTS (B.A.)

• English (p. 51)
• History (p. 56)

BACHELOR OF APPLIED ARTS AND SCIENCE (B.A.A.S.)

• Criminal Justice (p. 68)

BACHELOR OF MUSIC (B.MUS.)

• Music (p. 71)

BACHELOR OF SCIENCE (B.S.)

• Aviation Science-Aviation Management (p. 84)
• Aviation Science-Professional Pilot (p. 91)
• Biology (p. 94)
• Criminal Justice (p. 100)
• Liberal Studies (p. 103)
• Mathematics (p. 104)
• Mechanical Engineering Technology (p. 116)
• Political Science (p. 118)
• Sociology (p. 128)

BACHELOR OF SCIENCE IN NURSING (B.S.N.)

• Nursing (p. 130)

BACHELOR OF SOCIAL WORK (B.S.W.)

• Social Work (p. 133)
College of Business Administration

BACHELOR OF BUSINESS ADMINISTRATION (B.B.A.)
- Accounting (p. 137)
- Computer Information Systems (p. 140)
- Finance (p. 151)
- Human Resource Management (p. 154)
- Management (p. 159)
- Marketing (p. 165)

BACHELOR OF APPLIED ARTS AND SCIENCE (B.A.A.S.)
- Business (p. 169)
- Information Technology (p. 188)

BACHELOR OF SCIENCE (B.S.)
- Computer Information Systems (p. 197)
- Computer Science (p. 209)

College of Education

BACHELOR OF SCIENCE (B.S.)
- Education (p. 211)
- Exercise Physiology and Human Performance (p. 223)
- Psychology (p. 224)

Undergraduate Minors

- Minors (p. 231)
B.A. English

OVERVIEW
The English program prepares students to enter many diverse professional fields. English majors develop solid writing skills that can be applied to graduate studies, teaching, or a career in public or private sectors. Our program teaches technological and creative skills that engage students’ intellects and equips them with the training needed for a diverse workforce. In addition, our program provides the communication, analytical and interpersonal skills that are highly valued by today's employers.

As an English major, you can expect to develop as a writer and critical thinker. You will learn how to analyze language and literature and to discuss how these ways of seeing shape our culture and your identity. Equipped with these skills, our graduates develop into lifelong learners that possess the ability to turn a variety of perspectives into practical and meaningful workplace and community solutions.

Program Level Student Learning Outcomes
The student will be able to:
1. Perform critical reading and analysis.
2. Engage in scholarly research.
3. Create effective composition for varied audiences.
4. Create effective teaching moments using disciplinary texts.

Bachelor of Arts - English Major Program Requirements
Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Year</strong></td>
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</tr>
<tr>
<td>Fall</td>
<td></td>
<td></td>
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<tr>
<td>CORE REQ Communications (010) 2</td>
<td>Foreign Language I (DEG REQ)</td>
<td>3</td>
</tr>
<tr>
<td>Core REQ Mathematics (020)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>CORE REQ Life and Physical Sciences (030)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>CORE REQ Creative Arts (050)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>LANG 1311</td>
<td>Foreign Language I (DEG REQ)</td>
<td>3</td>
</tr>
<tr>
<td>Spring</td>
<td></td>
<td></td>
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<tr>
<td>CORE REQ Communications (010) 2</td>
<td>Foreign Language II (DEG REQ)</td>
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<td>CORE REQ Life and Physical Sciences (030)</td>
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</tr>
<tr>
<td>CORE REQ Social and Behavioral Sciences (080)</td>
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<tr>
<td>LANG 1312</td>
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<tr>
<td>Any Level Elective 2</td>
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<tr>
<td><strong>Second Year</strong></td>
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<tr>
<td>Fall</td>
<td></td>
<td></td>
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<tr>
<td>CORE REQ Language, Philosophy, and Culture (040)</td>
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<td>3</td>
</tr>
<tr>
<td>CORE REQ American History (060)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>CORE REQ Government/Political Science (070)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>CORE REQ Component Area Option (090) 2</td>
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<td></td>
</tr>
<tr>
<td>LANG 2311</td>
<td>Intermediate Language I (or Upper-Level Linguistics Course) 1</td>
<td>3</td>
</tr>
<tr>
<td>Spring</td>
<td></td>
<td></td>
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<tr>
<td>CORE REQ American History (060)</td>
<td></td>
<td>3</td>
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<tr>
<td>CORE REQ Government/Political Science (070)</td>
<td></td>
<td>3</td>
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<tr>
<td>CORE REQ Component Area Option (090) 2</td>
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<tr>
<td>LANG 2312</td>
<td>Intermediate Language II (or Upper-Level Linguistics Course) 1</td>
<td>3</td>
</tr>
<tr>
<td>Any Level Elective 2</td>
<td></td>
<td></td>
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<tr>
<td><strong>Third Year</strong></td>
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<tr>
<td>Fall</td>
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<td></td>
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<tr>
<td>ENGL 3305</td>
<td>Critical Analysis of Lit</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 3330</td>
<td>Advanced Composition</td>
<td>3</td>
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<tr>
<td>Upper-Level Elective</td>
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<tr>
<td>Upper-Level ENGL Elective</td>
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<tr>
<td>Spring</td>
<td></td>
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<tr>
<td>ENGL 4300</td>
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<td>3</td>
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<td>Upper-Level ENGL Elective</td>
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<td></td>
</tr>
<tr>
<td><strong>Fourth Year</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENGL 4311</td>
<td>History of Rhetoric</td>
<td>3</td>
</tr>
<tr>
<td>or ENGL 4312</td>
<td>Rhetorical Criticism</td>
<td></td>
</tr>
<tr>
<td>or ENGL 4313</td>
<td>Visual Rhetoric</td>
<td></td>
</tr>
<tr>
<td>or ENGL 4314</td>
<td>Multicultural Rhetorics</td>
<td></td>
</tr>
<tr>
<td>Upper-Level ENGL Elective</td>
<td></td>
<td></td>
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<tr>
<td>Upper-Level Elective</td>
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<tr>
<td>Upper-Level Elective</td>
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<tr>
<td>Any Level Elective 2</td>
<td></td>
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<tr>
<td>Spring</td>
<td></td>
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<tr>
<td>Upper-Level ENGL Elective</td>
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<td>Upper-Level Elective</td>
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<tr>
<td>Any Level Elective 2</td>
<td></td>
<td></td>
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<tr>
<td>Any Level Elective 2</td>
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<tr>
<td>Any Level Elective 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Credit Hours</td>
<td></td>
<td>120</td>
</tr>
</tbody>
</table>

1. 6 hours in upper-level Linguistics can be substituted for 6 hours of Foreign Language.
2. Lower Level Electives, Any Level Electives, Component Area Options, or Degree Requirements (DEG REQ) may consist of the FOS courses: ENGL 1301, ENGL 1302, two of the following: ENGL 2321, ENGL 2322, ENGL 2323, ENGL 2326, ENGL 2327, ENGL 2328, ENGL 2331, ENGL 2332, ENGL 2333, ENGL 2341, ENGL 2351.
Bachelor of Arts - English Major
With Minor in Secondary Education Program Requirements

Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan.

College of Education application for admission to program and faculty advisement is required prior to enrolling in secondary teacher certification preparation courses.*

Please note the following courses require a grade of 'C' or better: 12 credit hours of English, College Algebra, approved Educational Psychology course, and 15 credit hours in the certification subject area.

This program is designed for students wanting to teach 7-12 grade English.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
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| **Third Year** |                                               |              |
| Fall    |                                                                |              |
| ENGL 4300 | Shakespeare                                                    | 3            |
| ENGL 4311 | or History of Rhetoric                                         | 3            |
| or ENGL 4312 | or Rhetorical Criticism                                      |              |
| or ENGL 4313 | or Visual Rhetoric                                            |              |
| or ENGL 4314 | or Multicultural Rhetorics                                    |              |
| Upper-Level ENGL Elective |                                                 | 3            |
| Upper-Level ENGL Elective |                                                 | 3            |
| Upper-Level ENGL Elective |                                                 | 3            |

| **Fourth Year - Admission to Secondary Education Certification Required** | | |
| Fall    |                                                                |              |
| READ 3335 | Content Area Reading                                           | 3            |
| EDUC 4331 | Curriculum & Instruction for Secondary Teachers               | 3            |
| EDUC 4332 | Classroom Management for Secondary Teachers                   | 3            |
| EDUC 4317 | Assessment & Interpretation for Secondary Teachers            | 3            |
| EDUC 4337 | Educating Secondary Exceptional Learners                      | 3            |
| **Spring** |                                               |              |
| EDUC 4335 | Capstone for Educators                                        | 3            |
| EDUC 4691 | Clinical Teaching                                             | 6            |

**Total Credit Hours** | 120

6 hours in upper-level Linguistics can be substituted for 6 hours of Foreign Language.

**Courses**

**ENGL 1301. Composition I. 3 Credit Hours.**

(010) Intensive study of and practice in writing processes, from invention and researching to drafting, revising, and editing, both individually and collaboratively. Emphasis on effective rhetorical choices, including audience, purpose, arrangement, and style. Focus on writing the academic essay as a vehicle for learning, communicating, and critical analysis.
ENGL 2322. British Literature I. 3 Credit Hours.
(040) 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 and cultural contexts. Texts will be selected from a diverse group of authors and traditions.

ENGL 2323. British Literature II. 3 Credit Hours.
(040) A survey of the development of British literature from the Romantic period 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 a diverse group of authors and traditions.

ENGL 2326. American Literature (single-semester course). 3 Credit Hours.
(040) (050) 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 diverse group of authors for what they reflect and reveal about the evolving American experience and character.

ENGL 2327. American Literature I. 3 Credit Hours.
(040) A survey of American literature from the period of exploration and settlement through the Civil War. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Prerequisite(s): ENGL 1301.

ENGL 2328. American Literature II. 3 Credit Hours.
(040) A survey of American literature from the Civil War to the present. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Prerequisite(s): ENGL 1301.

ENGL 2331. World Literature (single-semester course). 3 Credit Hours.
(040) (050) A survey of world literature from the ancient world 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 a diverse group of authors and traditions.

ENGL 2332. World Literature I. 3 Credit Hours.
(040) A survey of world literature from the ancient world through the sixteenth century. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from a diverse group of authors and traditions. Prerequisite(s): ENGL 1301.

ENGL 2333. World Literature II. 3 Credit Hours.
(040) A survey of world literature from the seventeenth century 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 a diverse group of authors and traditions.

ENGL 3304. Western Literature II. 3 Credit Hours.
A survey of Western Literature from the Enlightenment to the Present. Prerequisite(s): ENGL 1301.

ENGL 3305. Critical Analysis of Lit. 3 Credit Hours.
(WI) A study of contemporary criticism as it relates to the study of form, theory, and content of fiction, nonfiction, drama, poetry, and other artistic expression. Prerequisite(s): ENGL 1301.

ENGL 3306. Readings in Adolescent Lit. 3 Credit Hours.
A survey of literature with a focus on teenage audiences. Texts include both the classics and contemporary selections. Prerequisite(s): ENGL 1301.

ENGL 3309. Tech Writing & Document Design. 3 Credit Hours.
(WI) The process of developing technical information, including researching, drafting, editing, revising, and designing technical reports, proposals, manuals, job application documents and professional correspondence for specific audiences, using word processing and graphic applications. Prerequisite(s): ENGL 1301.

ENGL 3310. Technical Writing & Editing. 3 Credit Hours.
(WI) Study of advanced technical communication situations such as formal reports, grant proposals, and professional articles, and extensive discipline-specific professional-level practice in these forms. Study of general editorial techniques in formats, graphics, and layout and design methods in technical publications. Prerequisite(s): ENGL 1301.
ENGL 3312. Graphics & Technical Writing. 3 Credit Hours.
This course examines the integration of graphic components in printed and electronic mediums. Students use computer applications to compose and design graphics such as bar graphs, organizational charts, flow charts, diagrams, and drawings. Prerequisite(s): ENGL 1301.

ENGL 3320. Advanced Grammars. 3 Credit 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. Prerequisite(s): ENGL 1301.

ENGL 3330. Advanced Composition. 3 Credit Hours.
(WI) Advanced Composition enhances students' proficiency in critical reading and thinking, rhetorical concepts/awareness, the writing process, academic argument, scholarly research, and productive revision practices. Through intensive writing workshops and critical engagement with a variety of interdisciplinary texts, students hone their writing abilities to meet the demands and expectations for different writing contexts with a particular focus on writing for academic audiences. Prerequisite(s): ENGL 1301.

ENGL 3335. Film Studies. 3 Credit Hours.
(WI) A study of movies as dramas involving narrative plot, characterizations, theme, etc. and as artistic productions involving shots, cuts, and other film techniques. Prerequisite(s): ENGL 1301.

ENGL 3339. Literature & Film. 3 Credit Hours.
This course introduces students to the relationship between literature and film and the practice of cinematic adaptation. Prerequisite(s): ENGL 1301.

ENGL 3343. Creative Writing. 3 Credit Hours.
Focuses on the craft and art of creative expression within one genre or a set of related genres. Attention to the conception, design, and execution of the whole work and of elements of figurative language, characterization, dialogue, point of view, and poetic structure, as well as other elements of the craft. Prerequisite(s): ENGL 1301.

ENGL 3350. Children's Literature. 3 Credit Hours.
A general survey of literature for children. Includes a study of types of literature for children and of the development of criteria for the selection and evaluation of children's books. This course may be counted as an elective but not towards the 24-hour advanced English requirement for an English major. Prerequisite(s): ENGL 1301.

ENGL 3356. Literary Authors. 3 Credit Hours.
(WI) An in-depth study of a single author or a single group of closely related authors. Topics vary and the course can be repeated for credit if taken under a different emphasis. Prerequisite(s): ENGL 1301.

ENGL 3357. Literary Themes. 3 Credit Hours.
(WI) An in-depth study of one major theme in literary history. Topics vary and the course can be repeated for credit if taken under a different emphasis. Prerequisite(s): ENGL 1301.

ENGL 3358. Literary Period. 3 Credit Hours.
(WI) An in-depth study of one major literary period in literary history. Topics vary and the course can be repeated for credit if taken under a different emphasis. Prerequisite(s): ENGL 3358.

ENGL 3359. Literary Genres. 3 Credit Hours.
(WI) An in-depth study of one major literary genre. Topics will vary and the course can be repeated for credit if taken under different emphasis. Prerequisite(s): ENGL 1301.

ENGL 3370. Introduction to Linguistics. 3 Credit 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 also focuses on the nature and diversity of the rule-bound creativity underlying the tacit systematic use of human language. Prerequisite(s): ENGL 1301.

ENGL 3372. Sociolinguistics. 3 Credit Hours.
Study of the relationship of language and society as shown in the following areas: language change, language variation and social class, pidgin and Creole languages, and language policy and planning. Prerequisite(s): ENGL 1301.

ENGL 3374. Psycholinguistics. 3 Credit Hours.
Deals with a variety of formal cognitive mechanisms that are relevant to the knowledge and use of natural languages. Prerequisite(s): ENGL 1301.

ENGL 3376. Discourse Analysis. 3 Credit Hours.
Investigates the structure of spoken communication from a linguistic perspective to enable students to understand narrative and conversation. Students study the principles of pragmatic theory, speech act theory and critical discourse analysis. Prerequisite(s): ENGL 1301.

ENGL 4300. Shakespeare. 3 Credit Hours.
An in depth study of representative types of Shakespeare's drama and poetry. Prerequisite(s): ENGL 1301.

ENGL 4311. History of Rhetoric. 3 Credit Hours.
This course provides students with a foundation in the history of rhetoric, paying particular attention to what many have labeled as the origin of rhetorical studies in classical Greece. Prerequisite(s): ENGL 1301.

ENGL 4312. Rhetorical Criticism. 3 Credit Hours.
(WI) This course introduces students to rhetorical criticism. Through a survey approach, students will be introduced to a wide range of analytical tools and strategies to effectively describe, analyze, and interpret a wide range of discourse. Prerequisite(s): ENGL 1301.

ENGL 4313. Visual Rhetoric. 3 Credit Hours.
(WI) Introduces students to a variety of lenses that can be used to study visual texts, including (but not limited to) Content Analysis, Compositional Interpretation, Semiology, Psychoanalysis, Discourse Analysis, and Audience Studies. Emphasizes the importance of visual rhetoric in communication and argument. Prerequisite(s): ENGL 1301.

ENGL 4314. Multicultural Rhetorics. 3 Credit Hours.
(WI) This course introduces students to multicultural rhetorics. Students will read texts examining the theory/practice of Asian, African, Latino/a, and African American Rhetorics. Special attention will be given to traditionally underrepresented voices in the rhetorical tradition. Prerequisite(s): ENGL 1301.

ENGL 4320. Writing for Electronic Media. 3 Credit Hours.
The advanced study of and practice in writing for electronic mediums with a primary focus on planning, designing, and composing professional pages for the World Wide Web. Prerequisite(s): ENGL 1301.

ENGL 4330. Grant & Proposal Writing. 3 Credit Hours.
This course offers advances practice in analyzing and writing proposals for businesses, governmental agencies, and/or private foundations. Prerequisite(s): ENGL 1301.

ENGL 4336. Film History. 3 Credit Hours.
This course examines the historical development of film as an industry and major modern art form. Attention given to important movements, periods, and nationalities. Prerequisite(s): ENGL 1301.
ENGL 4337. Film Auteurs. 3 Credit Hours.
This course examines the work of one or more film director. Attention
given to critical analysis of representative films and comprehension of
critical literature. Prerequisite(s): ENGL 1301.

ENGL 4338. Film Genres. 3 Credit Hours.
This course examines genre as a means of production and reception.
Attention given to the recurring characters, actions, and values in films
and the cultural role of these stories. Prerequisite(s): ENGL 1301.

ENGL 4339. Film Theory & Criticism. 3 Credit Hours.
This course examines the theoretical and critical approaches common
to film. Attention given to the major approaches to understanding film from
the spectator's side of the camera. Prerequisite(s): ENGL 1301.

ENGL 4360. Adv Studies in Secondary Engl. 3 Credit Hours.
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. Prerequisite(s): ENGL 1301.

ENGL 4378. History of the English Language. 3 Credit Hours.
Diachronic study of the English language with focus on the Old English,
Middle English, and Modern English periods. Topics include phonological,
morphological, syntactic, and lexical change in English along with the
cultural and historical events and contact situations, which accompany
language development. Prerequisite(s): ENGL 1301.

ENGL 4388. English Problems. 1-3 Credit 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 permission of department
chair. Prerequisite(s): ENGL 1301.

ENGL 4390. Writing Center Pedagogy. 3 Credit Hours.
This class introduces students to the theory, research, and practices of
tutoring writing by engaging them with the prominent scholarship on
writing centers while providing practical experience through observations,
co-tutoring, and live tutoring hours in the University Writing Center.
Prerequisite(s): ENGL 1301.

ENGL 5090. English Comprehensive Exam. 0 Credit Hours.
Comprehensive Examination for non-thesis students in the field of
English. The Comprehensive Examination should be completed during the
final semester of graduate coursework, or upon permission of advisor. All
comprehensive examinations will be written, but an oral component may
also be required. A maximum of three attempts will be allowed. Thesis
students do not take this examination.

ENGL 5300. Shakespeare. 3 Credit Hours.
A close study of Shakespeare’s literature and language with selections from
representative texts including the histories, comedies, tragedies,
and/or sonnets.

ENGL 5310. Studies in American Literature. 3 Credit 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 5320. Studies in English Language. 3 Credit 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.
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 5330. Studies in Rhetoric. 3 Credit 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 5340. Studies in Modern Fiction. 3 Credit 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 5342. Adaptation. 3 Credit Hours.
This course introduces students to the concept of adaptation and to one
account for how this concept has evolved. The focus is, admittedly, more
on the notion of adaptation as a way to engage a text critically than it is
on specific adaptations. All assignments, even those that ask students to
evaluate a particular adaptation, should reflect this conceptual focus.

ENGL 5350. Studies in Lit before 1500. 3 Credit Hours.
A study of representative types of pre-1500 literature in English. Topics
may vary. May be repeated for credit when topics vary.

ENGL 5352. Chaucer. 3 Credit Hours.
An in-depth study of the language and literature of Geoffrey Chaucer,
including his minor poetry and dream visions, Troilus and Criseyde, and
the Canterbury Tales.

ENGL 5360. Modern American & Brit Poetry. 3 Credit 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 Lit. 3 Credit 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 5372. English Seminar. 1-3 Credit Hours.

ENGL 5374. Methods of Bib & Res Analysis. 3 Credit Hours.
An introduction to methods of research and effective utilization of library
resources. May include analytical bibliography, enumerative bibliography,
and textual criticism.

ENGL 5380. Studies in Teaching of Comp. 3 Credit 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 5382. Composition Assessment. 3 Credit Hours.
This class introduces students to the scholarship, theory, and methods
for assessing writing with a particular focus on assessment theory and
history (especially non-psychometric understandings of validity and
reliability) and classroom assessment (e.g. grading and response) with
some discussion of large-scale assessments (e.g. program assessment,
placement, standardized testing, etc.).

ENGL 5384. English Internship. 3 Credit Hours.
Supervised professional activities in the college composition classroom
including presentations, evaluation, and conferences. May be repeated
once for credit. Field experience fee $75.
ENGL 5385. Writing Program Administration. 3 Credit Hours.
Investigates the work of writing program administrators, including FYC Coordinators, WAC Coordinators, WID Coordinators, and Writing Center Coordinators. Students can anticipate learning from current writing program administrators.

ENGL 5386. Computer Mediated Composition. 3 Credit Hours.
Explores notions of 21st century writing, paying particular attention to digital and multimodal composition; particular attention is given to teaching these text-types.

ENGL 5387. Studies in Literacy. 3 Credit Hours.
Examines the evolution of literacy and the expectations of literate students; approaches for conducting research in literacy studies is also addressed.

ENGL 5388. Special Problems. 1-3 Credit Hours.
Conference course. Directed independent study under supervision of a senior faculty member.

ENGL 5398. Thesis. 1-6 Credit Hours.
Scheduled when student is ready to begin thesis. No credit until thesis is accepted. Prerequisite(s): ENGL 5374, 24 hours of graduate credit and permission of department chair.

B.A. History

OVERVIEW

The Bachelor of Arts degree in History provides a curriculum that reveals the diversity and complexity of human history and life. By facilitating the development of reading, research, and writing skills we prepare students for graduate school or a variety of careers while imparting the knowledge and perspective future leaders will need in their professions. The degree can accommodate a minor or secondary teacher certification.

Our program also provides educational experiences outside of the classroom. Qualified students are invited to join the Alpha-Omicron-Alpha chapter of Phi Alpha Theta, the national honor society for history. We host the annual Central Texas Military History Symposium. The symposium showcases prominent speakers from the military and the academy. Students also benefit from the use of the Central Texas Historical Archive, which is housed in a state-of-the-art facility in Heritage Hall. The unique, one-million page archive includes collections on military, diplomatic, and presidential history of the post-World War II era.

Our diverse inventory of upper-level courses includes US History, European History and World History. We balance the treatment of political, social, military, and diplomatic history in our course offerings.

Program Level Student Learning Outcomes

The student will be able to:

1. Analyze, synthesize, and evaluate academic content within the discipline of history.
2. Know the historical development of the discipline and the philosophical approaches to history that have developed over time.
3. Demonstrate appropriate style and grammar, as well as organizational and analytical ability in their written work.
4. Conduct and report research that analyzes, synthesizes, and evaluates historical content.

Bachelor of Arts - History Major Program Requirements

Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan.

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Bachelor of Arts - History Major

With Minor in Secondary Education Program Requirements

Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan.

College of Education application for admission to program and faculty advisement is required prior to enrolling in secondary teacher certification preparation courses.*

Please note the following courses require a grade of ‘C’ or better: 12 credit hours of English, College Algebra, approved Educational Psychology course, and 15 credit hours in the certification subject area.

This program is designed for students wanting to teach 7-12 grade History.

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<tr>
<th>Code</th>
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<tr>
<td>ENGL 1301</td>
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<td>CORE REQ Life and Physical Science (030)</td>
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<td>LANG 1311</td>
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<tr>
<td>HIST 1300</td>
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<tr>
<td>HIST 1301</td>
<td>United States History I (CORE REQ (060))</td>
<td>3</td>
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<td>GOVT 2305</td>
<td>Federal Government (CORE REQ (070))</td>
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<td>or PSYC 3303</td>
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<td>HIST 4382</td>
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<td>HIST 4381</td>
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EDUC 4332  Classroom Management for Secondary Teachers  3
EDUC 4317  Assessment & Interpretation for Secondary Teachers  3
EDUC 4337  Educating Secondary Exceptional Learners  3

Spring
EDUC 4335  Capstone for Educators  3
EDUC 4691  Clinical Teaching  6

Total Credit Hours  120

1 All 12 hours must be from the same language; CLEP, Defense Language Certification.

Education Courses

EDUC 1100. Learning Frameworks. 1 Credit Hour.
A study of the: research and theory in the psychology of learning, cognition, and motivation; factors that impact learning, and application of learning strategies. Theoretical models of strategic learning, cognition, and motivation serve as the conceptual basis for the introduction of college-level student academic strategies. Students use assessment instruments (e.g., learning inventories) to help them identify their own strengths and weaknesses as strategic learners. Students are ultimately expected to integrate and apply the learning skills discussed across their own academic programs and become effective and efficient learners. Students developing these skills should be able to continually draw from the theoretical models they have learned. (Cross-listed as PSYC 1300).

EDUC 1200. Learning Frameworks. 2 Credit Hours.
A study of the: research and theory in the psychology of learning, cognition, and motivation; factors that impact learning, and application of learning strategies. Theoretical models of strategic learning, cognition, and motivation serve as the conceptual basis for the introduction of college-level student academic strategies. Students use assessment instruments (e.g., learning inventories) to help them identify their own strengths and weaknesses as strategic learners. Students are ultimately expected to integrate and apply the learning skills discussed across their own academic programs and become effective and efficient learners. Students developing these skills should be able to continually draw from the theoretical models they have learned. (Cross-listed as PSYC 1300).

EDUC 1300. Learning Frameworks. 3 Credit Hours.
A study of the: research and theory in the psychology of learning, cognition, and motivation; factors that impact learning, and application of learning strategies. Theoretical models of strategic learning, cognition, and motivation serve as the conceptual basis for the introduction of college-level student academic strategies. Students use assessment instruments (e.g., learning inventories) to help them identify their own strengths and weaknesses as strategic learners. Students are ultimately expected to integrate and apply the learning skills discussed across their own academic programs and become effective and efficient learners. Students developing these skills should be able to continually draw from the theoretical models they have learned. (Cross-listed as PSYC 1300).

EDUC 1301. Introduction to the Teaching Profession. 3 Credit Hours.
An enriched, integrated pre-service course and content experience that provides active recruitment and institutional support of students interested in a teaching career, especially in high need fields. The course provides students with opportunities to participate in early field observations at all levels of P-12 schools with varied and diverse 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 for Educator Certification Pedagogy and Professional Responsibilities standards; and the course must include a minimum of 16 contact hours of field experience in P-12 classrooms.

EDUC 2301. Introduction to Special Populations. 3 Credit Hours.
(080) An enriched, integrated pre-service course and content experience that provides an overview of schooling and classrooms from the perspectives of language, gender, socioeconomic status, ethnic and academic diversity, and equity with an emphasis on factors that facilitate learning. The course provides students with opportunities to participate in early field observations of P-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 3300. World Regional Geography for Educators. 3 Credit Hours.
Examine practices for teaching World Regional Geography. Required for a Bachelor of Science degree in Interdisciplinary Studies and for teacher certification. Must be completed before students attempt the TExES, the teacher certification exam, and before student teaching.

EDUC 3310. Theories of Learning. 3 Credit Hours.
(WI) This course examines influential learning theories and the implications of these theories for educational practice. Survey of seminal theorists and their contributions to understanding how learning occurs and how learners develop and construct meaning to acquire knowledge and skills. This course should be taken in the first block of the teacher education program. Prerequisite(s): Admission to teacher education block 1.

EDUC 3315. Literacy Instruction for Bilingual Classroom. 3 Credit Hours.
Examine knowledge and skills required to teach limited English language learners, with an emphasis on program implementation, curriculum, materials, oral language, literacy development and assessment strategies. Spanish and English will be spoken in this class. Prerequisite(s): Passing scores on the BTLPT – Spanish (Bilingual Target Language Proficiency Test) – Spanish, EDUC 3325, EDUC 3320 and READ 3311.

EDUC 3320. Professional Development in Learner Centered Schools. 3 Credit Hours.
Examine students in learner centered schools. Study lesson planning, learning styles and strengths of diverse learners, learner-centered instructions, instructional strategies, lesson plans, TEKS educational equality, and the professional standards of educators. Technology lab and documentation of field experiences are required. Certification Fee - $150.

EDUC 3325. Fundamentals of Bilingual and English as a Second Language Education. 3 Credit Hours.
Examine history, philosophies, theoretical, and legal foundations regarding Bilingual/English as a Second Language education. Learn the knowledge and skills required to teach English Language Learners, with an emphasis on instructional strategies. Prerequisite(s): EDUC 3320.
EDUC 3330. Professional Development II: Effective Instruction. 3 Credit Hours.
Examine the relationship between the state-adopted curriculum, learner-centered proficiencies, and best practices. Study lesson cycles, models of learning, instruction, uses of technology, assessment, classroom management, micro-teaching and field experience. Classroom management lab and documentation of field experiences are required. Prerequisite(s): EDUC 3320 and admission to the Teacher Education Program.

EDUC 3340. Mathematics Instruction for Classroom Teachers. 3 Credit Hours.
Study for preservice educators to plan, organize, deliver, and evaluate developmentally appropriate educational strategies and instructional techniques in teaching mathematics to diverse learners. Design responsive instruction appropriate for all learners which reflects an understanding of relevant mathematics content, promotes active engagement, and is based on continuous and appropriate assessment.

EDUC 3350. Science Instruction for Classroom Teachers. 3 Credit Hours.
Study for preservice educators to plan, organize, deliver, and evaluate developmentally appropriate educational strategies and instructional techniques in teaching science to diverse learners. Design responsive instruction appropriate for all learners which reflects an understanding of relevant science content, promotes active engagement, and is based on continuous and appropriate assessment.

EDUC 3360. The Arts for Educators. 3 Credit Hours.
This methods course is concerned with providing experience for preservice educators to plan, organize, deliver, and evaluate developmentally appropriate educational strategies and instructional techniques in teaching the arts to diverse learners. The students design responsive instruction appropriate for all learners which reflects an understanding of relevant music, art and theater content, promotes active engagement, and is based on continuous and appropriate assessment.

EDUC 3370. Instructional Strategies. 3 Credit Hours.
This course is designed to develop advanced strategies to identify readiness for learning; and to understand when and how to adjust content, process, or product in order to differentiate responsive instruction effectively. This course should be taken in the second block of the teacher education program. Certification Fee - $150. Prerequisite(s): Completion of teacher education block 1 with a minimum 2.75 GPA.

EDUC 3420. Instructional Planning and Delivery. 4 Credit Hours.
This course addresses the lesson cycle; instructional models; use of technology to enhance instruction; resources to plan, deliver and assess instruction; the role of assessment in driving instruction; Texas Essential Knowledge and Skills (TEKS) and the curricula scope and sequence. This course should be taken in the first block of the teacher education program. Prerequisite(s): Admission to teacher education block 1.

EDUC 3430. The Learner and the Learning Environment. 4 Credit Hours.
This course introduces various classroom organizational strategies, offers preservice teachers ideas for effective classroom management, and develops an understanding of the value of collaborating within the school community. The course addresses the creation of safe and supportive learning environments that foster high levels of student engagement and maximize student learning. This course should be taken in the first block of the teacher education program. Prerequisite(s): Admission to teacher education block 1.

EDUC 4304. Early Childhood Environments Professional Development III. 3 Credit Hours.
Study all aspects of classroom management, including the physical environment and use of centers for diverse groups of early elementary students. Examine current issues related to early childhood education. Demonstrate developmentally appropriate effective teaching practices in field-based setting. Prerequisite(s): Admission to the Teacher Education Program, Application for Practicum, READ 3330, EDUC 3325, EDUC 3330, EDUC 3340 and EDUC 3350; Concurrent enrollment in READ 4304, READ 4305 and EDUC 4340. Field experience fee $75.

EDUC 4305. Language Concepts and Proficiencies in a Bilingual Classroom. 3 Credit Hours.
Examine curriculum requirements as applicable to bilingual education, language concepts and proficiencies needed for teaching language arts, math, science, and social studies in bilingual classrooms. Evaluate commercial and research-based programs in order to adapt materials for students with varying degrees of language and literacy proficiency. Field experiences required. Prerequisite(s): Passing scores on the BTLPT – Spanish (Bilingual Target Language Proficiency Test-Spanish), EDUC 3325, EDUC 3315, READ 3311 and READ 3335.

EDUC 4312. Literacy Development II. 3 Credit Hours.
(WI) A field-based course surveying characteristics of the transitional/ independent literacy learner, methods of instruction for writing, strategy building, comprehension, vocabulary, word identification, utilizing the Texas Essential Knowledge and Skills. Examines typical/atypical reading development and strategies for assessing/addressing reading differences in individual learners. Explores structures and features of expository text including examination of supports and challenges within the text.

EDUC 4315. Elementary Curriculum, Assessment and Instruction. 3 Credit Hours.
Implement assessment-driven instruction and curricular design in interdisciplinary contexts. Apply knowledge of developmental stages, learner needs, and the stated expectations of TEKS in the core content areas to design, implement, and evaluate an interdisciplinary curriculum. Study effective teaching practices, problem based learning and technology applications. Pre-requisites EDUC 3320, EDUC 3330 and concurrent enrollment in EDUC 4304, READ 4304 and READ 4305.

EDUC 4317. Assessment & Interpretation for Secondary Teachers. 3 Credit Hours.
This course is for students seeking a secondary certification to examine technology driven instruction and curricular design in interdisciplinary contexts. Apply knowledge of developmental stages, learner needs, and the stated expectations of TEKS in the core content areas to design, implement, and evaluate an interdisciplinary curriculum. Study effective teaching practices, problem based learning and technology applications. Pre-requisites EDUC 3320, EDUC 3330 and concurrent enrollment in EDUC 4304, READ 4304 and READ 4305.

EDUC 4320. Integrated Social Studies Methods, EC-8. 3 Credit Hours.
This methods course is concerned with providing experience for preservice educators to plan, organize, deliver, and evaluate developmentally appropriate educational strategies and instructional techniques in teaching Social Studies through the integration of English Language Arts and Fine Arts. It correlates social studies content with the National Council of Social Studies Strands and disciplines and the Texas Essential Knowledge and Skills. This course should be taken in the third block of the teacher education program. Prerequisite(s): Prerequisite: Admission to teacher education program.
EDUC 4325. History for Educators. 3 Credit Hours.
This methods course is concerned with providing experience for preservice educators to plan, organize, deliver, and evaluate developmentally appropriate educational strategies and instructional techniques in teaching US, Texas and world history to diverse learners. The students design responsive instruction appropriate for all learners which reflects an understanding of relevant history content, promotes active engagement, and is based on continuous and appropriate assessment.

EDUC 4330. Professional Development III. 3 Credit Hours.
Field-based and practicum experiences are required in school settings, where students plan units of instruction, examine various models of instruction, analyze classroom management strategies, and demonstrate competencies in effective teaching practices. Prerequisite(s): Admission to the Teacher Education Program, EDUC 3330 and READ 3335. Field experience fee - $75.

EDUC 4331. Curriculum & Instruction for Secondary Teachers. 3 Credit Hours.
The course will study lesson planning, lesson cycles, learning styles and strengths of diverse learners. Additionally, teacher candidates will explore learner-centered instruction and strategies, brain-based learning, cooperative learning, assessment, classroom management, integration of technology, and the state-adopted curriculum (TEKS). The teacher candidates will examine the relationship between the state-adopted curriculum, learner-centered proficiency, and best practices. Field experiences 25 hours are required as well as $25 field experience fee. Additionally, a fee of $150 is due for certification. Prerequisite(s): Admission to the Teacher Education Program.

EDUC 4332. Classroom Management for Secondary Teachers. 3 Credit Hours.
This course provides secondary educators with knowledge and skills to create safe, supportive, and respectful learning environments. Students will analyze classroom management strategies and examine various modes of instruction. An analysis of legal and ethical issues as they relate to the classroom are an important component of the course. Secondary students will have field-based experience based on in-school settings. Admittance into the Teacher Education Program. Prerequisite(s): Admittance into the Teacher Education Program. Field Experience required. Field Experience Fee: $25.

EDUC 4335. Capstone for Educators. 3 Credit Hours.
Capstone is a culminating course designed for teacher candidates to synthesize their knowledge across the program through the development of artifacts that demonstrate effective integration of content understanding and pedagogical skills. The teacher candidates will analyze student learning and reflect on their teaching effectiveness in order to facilitate learning for all students. Prerequisite(s): Admittance to the Teacher Education Program, successful completion of Content Certification Examination, and concurrent enrollment in Clinical Teaching (EDUC 4691).

EDUC 4337. Educating Secondary Exceptional Learners. 3 Credit Hours.
This course provides instruction in the historical, philosophical, and legal foundations of exceptional education as related to current issues and practices in educational settings. It comprises issues and trends that include transition – related instruction, postsecondary programs, and adaptability to and in secondary classrooms. Teacher candidates will develop an awareness of legal aspects of exceptional education as well as needs and services specific to students with specific needs in the secondary classroom. Prerequisite(s): Field experience required. Field experience fee $25.

EDUC 4340. Technology Application and Integration for Classroom Teachers. 3 Credit Hours.
Study for preservice educators to plan, organize, deliver, and evaluate instruction for diverse learners through the effective use and integration of current technology. Use of technology for ethical and professional communication with colleagues, community, and students. Prerequisite(s): Admission to Clinical Teaching; successful completion of designated content area Texas Examination of Educator Standards (TExES); concurrent enrollment in EDUC 4691 and EDUC 4335 or permission of department chair.

EDUC 4345. Mathematics & Science Methods in the Elementary Classroom. 3 Credit Hours.
This purpose of this course is to help preservice teachers discover how elementary children think and learn about mathematics. Examines the curriculum foundations and instructional methods for elementary mathematics. Building upon previous mathematical knowledge, and with a focus on supporting high quality mathematics education, this course provides resources and opportunities for experience with a number of instructional strategies and manipulatives. Science instruction focuses on the methods, materials and approaches for teaching science, including developmentally appropriate introductions to the physical, earth and life sciences. This course should be taken in the third block of the teacher education program. Prerequisite(s): Admission to teacher education program.

EDUC 4384. Classroom Teaching Internship. 3 Credit Hours.
Explore 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. May be repeated for credit. Prerequisite(s): Admission to the Teacher Education Program. Field experience fee - $75.

EDUC 4388. Education Problems. 1-3 Credit Hours.
Study of selected problems in education. Engage in independent research, reading and discussions under the personal direction of the instructor, topics may vary according to student need. Prerequisite(s): Junior or senior standing, admission to the Teacher Education Program and permission of Curriculum and Instruction Program Coordinator.

EDUC 4484. Field Experience. 4 Credit Hours.
Supervised field-based experiences in public school classrooms. Major emphasis is placed on the identification and exploration of instructional strategies, the learning environment, and professional practices designed to prepare for clinical teaching. This course should be taken in the third block of the teacher education program. Field Experience Fee: $75.00 Prerequisite(s): Admission to teacher education program.

EDUC 4691. Clinical Teaching. 6 Credit Hours.
Explore supervised clinical teaching in the public schools at the appropriate level (1-18). A demonstration of proficiency in the application of effective teaching practices and classroom management strategies is required. Prerequisite(s): Admission to Clinical Teaching and the successful completion of designated content area of the Texas Examination of Educator Standards (TExES); Concurrent enrollment in EDUC 4335 and EDUC 4340*, or permission of department chair. * 7-12 math students may take MATH 3315 in place of EDUC 4340. Field experience fee - $75.
EDUC 5090. Education Comprehensive Examination. 0 Credit Hours.
Study and take the education examination for Non-thesis students. Register for the comprehensive examination during final semester of graduate coursework, or upon permission of advisor. All comprehensive examinations will be written, but an oral component may also be required. A maximum of three attempts will be allowed. Thesis student do not take this examination.

EDUC 5198. Education Thesis. 1-6 Credit Hours.
Independent research course in which a student proposes and completes an original, quantitative research project. Scheduled when the student is ready to begin thesis. No credit awarded until proposal and thesis are complete. Prerequisite(s): Completion of all other coursework required for the degree and consent of the major professor or permission of department chair.

EDUC 5300. Foundations and History of Education. 3 Credit Hours.
Examine history of education in the United States through a study of the philosophical, historical, psychological and social foundations of curriculum. Emphasis is on the development of a philosophy of education and critical thinking about issues in education. Students must complete this course within the first twelve semester hour of graduate study.

EDUC 5301. Readings in Professional Development. 3 Credit Hours.
Study current issues in the professional development of educators. Study 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. Cultural Diversity in Schools and Community. 3 Credit Hours.
Examine various dimensions of culture related to teaching, learning, and support services in the community. Study ethnicity, socio-economic status, language, gender, religion, age, and exceptionality.

EDUC 5304. Human Development. 3 Credit Hours.
Analyze human behavior with emphasis on the child, adolescent, and adult learner. Develop insight and social and cultural forces in the formation of personality, the self, and roles in group membership.

EDUC 5306. Adult Education. 3 Credit Hours.
Examine philosophy and concepts of adult education including the role of the adult educator, setting of objectives, integration of adult learning with career goals or changes and assessment of educational needs of adults.

EDUC 5311. Methods of Effective Teaching. 3 Credit Hours.
Study research on effective teaching practices with an emphasis on direct instruction. Learn mastery learning, assessment of learning and use of assessment to guide instruction. Apply technology and effective teaching practices to the design and delivery of instruction. Technology lab is required. Certification Fee - $150.

EDUC 5312. Language and Social Studies Seminar. 3 Credit Hours.
Learn to teach Social Studies through the application of the writing process, reading/writing connections, and children's literature. Prerequisite(s): 18 hours of professional education course work.

EDUC 5314. Creating and Managing Learning Environment. 3 Credit Hours.
Learn to create and maintain a positive learning environment. Study cultural dimensions of classroom management, motivating student achievement, fostering cooperation among students, reinforcing appropriate behavior, and ethics and law governing teacher-student relations. Apply teaching and classroom management practices in a clinical laboratory setting.

EDUC 5322. Teaching Mathematics and Science. 3 Credit Hours.
Study 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. 3 Credit Hours.
Study early childhood education curriculum and practices. Examine current trends in early childhood curriculum with an emphasis on the modifications needed to ensure the success of all young children. Prerequisite(s): 18 hours of professional educational course work.

EDUC 5338. Curriculum Design and Implementation. 3 Credit Hours.
Explore curriculum selection, design, implementation, and evaluation processes within the classroom and school district settings. Study factors that influence curriculum decision-making processes and a review of theories of curriculum development. Major emphasis on curriculum alignment and curriculum auditing.

EDUC 5340. Evidence Based Teaching. 3 Credit Hours.
In this course, participants will learn about various instructional strategies to enhance learning experiences in education. The class will cover appropriate methods and techniques from basic principles of learning and brain-based/whole-brain techniques. The course will also foster 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 5345. Advanced Instructional Strategies for Diverse Learners. 3 Credit Hours.
Study appropriate methods and techniques from basic principles of learning. Develop 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 and Interpretation for Education Leaders. 3 Credit Hours.
Examine 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 Programs. 3 Credit Hours.
Study 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.
Study 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.
Study theories and models of creativity. Emphasis will be given to identifying the creative potential of students in all classrooms. Examine and develop instructional processes which accommodate the needs of creative learners. Prerequisite(s): EDUC 5360.

EDUC 5364. Curriculum and Material Development For Gifted Learners. 3 Credit Hours.
Study a comparison of regular and gifted curricula with a focus on developing an interdisciplinary curriculum for gifted learners. Examine and evaluate existing materials and equipment which support instruction for the gifted in both regular and special programs. Emphasis will be on developing and evaluating teacher constructed materials. Prerequisite(s): EDUC 5360.
EDUC 5366. Instruction and Evaluation For Gifted Learners. 3 Credit Hours.
Analyze methods of determining specific learning styles and talents, with emphasis placed on implementing appropriate instruction for programs. Learn methods and tools of informal and formal evaluation and assessment. Prerequisite(s): EDUC 5360 and EDUC 5364.
EDUC 5369. Education Seminar. 1-3 Credit 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 5370. Techniques of Research. 3 Credit Hours.
Explore fundamental concepts and tools of research applied to psychological and educational problems. Study rationale of research, analysis of problems, library skills, sampling, appraisal instruments, statistical description and inference, writing the research report, and representative research designs.
EDUC 5384. Teaching Internship. 3 Credit Hours.
Gain field-based experience in classroom teaching. Interns must demonstrate proficiency in applying effective teaching practices and classroom management strategies in a school classroom. Prerequisite(s): admission to a teacher certification program; satisfactory performance in the professional development courses preceding the internship. May be repeated for credit. Field experience fee - $75 or Internship fee - $1500 (effective fall 2016).
EDUC 5385. Teaching Internship II. 3 Credit Hours.
Explore a 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(s): Admission to a teacher certification program at TAMUCT; satisfactory performance in the professional development courses preceding the internship; Second semester Prerequisite(s): EDUC 5384. Field experience fee - $75 or Internship fee - $1500 (effective fall 2016).
EDUC 5388. Special Education Problems. 1-6 Credit Hours.
Study of selected problems in special education. Engage in independent research, reading and discussions under the personal direction of the instructor; topics may vary according to student need. Open to graduate students who are capable of developing a problem independently. Prerequisite(s): Graduate major in Education.
EDUC 5389. Special Topics In Education. 3 Credit Hours.
Examine 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 course may be repeated for credit as topic changes. Prerequisite(s): Permission of instructor.
EDUC 5391. Gifted Education Practicum. 3 Credit Hours.
Supervise 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. Prerequisite(s): Successful completion of EDUC 5360, EDUC 5362, EDUC 5364 and EDUC 5366.

History Courses
HIST 1301. United States History I. 3 Credit Hours.
(060) A survey of the social, political, economic, cultural, and intellectual history of the United States from the pre-Columbian era to the Civil War/Reconstruction period. United States History I includes the study of pre-Columbian, colonial, revolutionary, early national, slavery and sectionalism, and the Civil War/Reconstruction eras. Themes that may be addressed in United States History I include: American settlement and diversity, American culture, religion, civil and human rights, technological change, economic change, immigration and migration, and creation of the federal government.
HIST 1302. United States History II. 3 Credit Hours.
(060) A survey of the social, political, economic, cultural, and intellectual history of the United States from the Civil War/Reconstruction era to the present. United States History II examines industrialization, immigration, world wars, the Great Depression, Cold War and post-Cold War eras. Themes that may be addressed in United States History II include: American culture, religion, civil and human rights, technological change, economic change, immigration and migration, urbanization and suburbanization, the expansion of the federal government, and the study of U.S. foreign policy.
HIST 2301. Texas History. 3 Credit Hours.
(060) (080) A survey of the political, social, economic, cultural, and intellectual history of Texas from the pre-Columbian era to the present. Themes that may be addressed in Texas History include: Spanish colonization and Spanish Texas; Mexican Texas; the Republic of Texas; statehood and secession; oil, industrialization, and urbanization; civil rights; and modern Texas.
HIST 2311. Western Civilization I. 3 Credit Hours.
(040) (080) A survey of the social, political, economic, cultural, religious, and intellectual history of Europe and the Mediterranean world from human origins to the 17th century. Themes that should be addressed in Western Civilization I include the cultural legacies of Mesopotamia, Egypt, Greece, Rome, Byzantium, Islamic civilizations, and Europe through the Middle Ages, Renaissance, and Reformations.
HIST 2312. Western Civilization II. 3 Credit Hours.
(040) (080) A survey of the social, political, economic, cultural, religious, and intellectual history of Europe and the Mediterranean world from the 17th century to the modern era. Themes that should be addressed in Western Civilization II include absolutism and constitutionalism, growth of nation states, the Enlightenment, revolutions, classical liberalism, industrialization, imperialism, global conflict, the Cold War, and globalism.
HIST 2321. World Civilizations I. 3 Credit Hours.
(040) (080) A survey of the social, political, economic, cultural, religious, and intellectual history of the world from the emergence of human cultures through the 15th century. The course examines major cultural regions of the world in Africa, the Americas, Asia, Europe, and Oceania and their global interactions over time. Themes include the emergence of early societies, the rise of civilizations, the development of political and legal systems, religion and philosophy, economic systems and trans-regional networks of exchange. The course emphasizes the development, interaction and impact of global exchange.
HIST 2322. World Civilizations II. 3 Credit Hours.
(040) (080) A survey of the social, political, economic, cultural, religious, and intellectual history of the world from the 15th century to the present. The course examines major cultural regions of the world in Africa, the Americas, Asia, Europe, and Oceania and their global interactions over time. Themes include maritime exploration and transoceanic empires, nation-state formation and industrialization, imperialism, global conflicts and resolutions, and global economic integration. The course emphasizes the development, interaction and impact of global exchange.

HIST 2327. Mexican American History I. 3 Credit Hours.
(060) (080) A survey of the economic, social, political, intellectual, and cultural history of Mexican Americans/Chicanx. Periods include early indigenous societies, conflict and conquest, early European colonization and empires, New Spain, early revolutionary period, Mexican independence and nation building, United States expansion to the United States-Mexico War Era. Themes to be addressed are mestizaje and racial formation in the early empire, rise and fall of native and African slavery, relationship to early global economies, development of New Spain’s/Mexico’s northern frontier, gender and power, missions, resistance and rebellion, emergence of Mexican identities, California mission secularization, Texas independence, United States’ wars with Mexico, and the making of borders and borderlands. (May be applied to U.S. History requirement.).

HIST 2328. Mexican American History II. 3 Credit Hours.
(060) A survey of the economic, social, political, intellectual, and cultural history of Mexican Americans/Chicanx. Periods include the United States-Mexico War Era, incorporation of Northern Mexico into the United States, Porfirian Mexico, and the nineteenth century American West. The course examines the age of NAFTA and the latter part of the 21st century developments. Themes to be addressed are the making of borders and borderlands, impact of Treaty of Guadalupe Hidalgo, gender and power, migration and national identities, citizenship and expulsion, nineteenth century activism and displacement, industrialization and the making of a transnational Mexican working class, urbanization and community formation, emergence of a Mexican American Generation, war and citizenship, organized advocacy and activism, Chicano Movement, changing identities and identities, trade and terrorism. (May be applied to U.S. History requirement.).

HIST 2381. African-American History. 3 Credit Hours.
(060) (080) Historical, economic, social, and cultural development of minority groups. May include African-American, Mexican American, Asian American, and Native American issues.

HIST 3300. Historian’s Craft. 3 Credit Hours.
(WI) Introduces the study of history. Learn to think historically, understand how historians construct and write about the past, and critically evaluate historical arguments. Develop writing and research skills to interpret primary sources and master professional standards of presentation. Required for all history majors. Prerequisite(s) for upper level History courses, and must be taken during the first semester, open only to declared History majors or by consent of instructor.

HIST 3310. American Beginnings. 3 Credit Hours.
Explore the history of America from first European contact to 1763. Special emphasis on relations between Europeans and Native Americans, imperial rivalries, and the development of the English mainland colonies. Prerequisite(s): 6 hours of HIST or permission of department chair.

HIST 3311. Creating a Nation. 3 Credit Hours.
Explore the history of the United States from 1763 to 1815. Special emphasis on the causes and consequences of the American Revolution, the writing of the Constitution, and the triumph of liberal democracy. Prerequisite(s): 6 hours of HIST or permission of department chair.

HIST 3312. The Age of Jackson from 1815-1848. 3 Credit Hours.
Examine American development during the Jacksonian period with an emphasis on the expansion of social and political democracy. Prerequisite(s): 6 hours of HIST or permission of department chair.

HIST 3313. The Civil War and Reconstruction. 3 Credit Hours.
Explore the events leading to the Civil War and the impact of that war and Reconstruction on American development. Special emphasis on social and cultural forces as well as politics. Prerequisite(s): 6 hours of HIST or permission of department chair.

HIST 3315. Populism and Progressivism, 1877-1917. 3 Credit Hours.
Study American history at the turn of the century, emphasizing the impact of industrialism and urbanism on politics and society. Prerequisite(s): 6 hours of HIST or permission of department chair.

HIST 3316. Military History of the United States. 3 Credit Hours.
Study the role of the military in American development with emphasis on the 20th century. Concentrates on the evolution of strategy and tactics, organizational change and civilian-military relations. Prerequisite(s): 6 hours of HIST or permission of department chair.

HIST 3320. Social History of the United States to 1877. 3 Credit Hours.
Examine the social, cultural, and economic development of the United States from colonial times to the end of Reconstruction. Prerequisite(s): 6 hours of HIST or permission of department chair.

HIST 3321. Social History of the United States from 1877. 3 Credit Hours.
Examine American development during the Jacksonian period with an emphasis on the causes and consequences of the American Revolution, the writing of the Constitution, and the triumph of liberal democracy. Prerequisite(s): 6 hours of HIST or permission of department chair.

HIST 3322. History of Texas. 3 Credit Hours.
Explore Texas history from the Spanish colonial period to the present. Concentrates on the dynamics of Hispanic heritage, the Revolution and Republic, the Civil War and Reconstruction, and the political and economic developments of the modern state. Prerequisite(s): 6 hours of HIST or permission of department chair.

HIST 3324. Hollywood Westerns and the American West. 3 Credit Hours.
Examine the 20th century American Western history through an examination of Western films, from the early twentieth century to the present day. Analyze mythic interpretations and historical realities of the American West to understand the role of the western in shaping perceptions of the West.

HIST 3325. United States Women’s History to 1877. 3 Credit Hours.
Study the history of women in America from the colonial period through 1877, with special emphasis on women’s roles in public and private life, and the historical role of women in the development of the nation.

HIST 3326. United States Women’s History from 1877. 3 Credit Hours.
Study the history of women in America from 1877 through the present, with special emphasis on the emergence of modern American women during the latter part of the Nineteenth century and women’s roles in the continued development of the nation.

HIST 3327. African American History to 1877. 3 Credit Hours.
Explore African American history from the colonial period to 1877, with special emphasis on the slave trade, the development of the institution of slavery, free blacks and the impact of the Civil War and Reconstruction on African Americans.
HIST 3328. African American History from 1877. 3 Credit Hours.
Explore African American history from the end of Reconstruction to the present, with special emphasis on black leaders, disenfranchisement, lynching and the quest for equality in the mid-twentieth century.

HIST 3329. Church and State. 3 Credit Hours.
Examine the relationship of church and state in United States history, and the role religion has played in American political life, culture, and society.

HIST 3332. The Renaissance and Reformation, 1300-1648. 3 Credit Hours.
Examine European political, diplomatic, and cultural history from 1300 to 1648. Special emphasis on Renaissance Humanism, the Protestant movements, the Catholic Reformation, and the emergence of the European state system during the age of religious wars. Prerequisite(s): 6 hours of HIST or permission of department chair.

HIST 3339. Europe in the Middle Ages. 3 Credit Hours.
Examine Medieval Europe from the decline of the ancient world to the eve of the Renaissance. Special emphasis on the political, economic and social changes underlying the formation and development of medieval civilization. Prerequisite(s): 6 hours of HIST or permission of department chair.

HIST 3341. Europe from 1814 - 1919. 3 Credit Hours.
Examine the important developments in the political, diplomatic, social, economic, and intellectual history of Europe between the Congress of Vienna and the first World War, including the Revolution of 1848, the Industrial Revolution, and European diplomatic events leading to the Great War. Prerequisite(s): 6 hours of HIST or permission of department chair.

HIST 3360. Asian Civilization. 3 Credit Hours.
A survey of Asian civilizations with a primary focus on the history and cultures of India, China, and Japan. Examine general trends in the political, economic, social, and intellectual history of Asia, highlighted by discussions and consideration of selected cultural elements, such as art, literature, and film.

HIST 3361. History and Film. 3 Credit Hours.
Introduces topics in history through the study of film, with supplementary reading, lectures, and discussions.

HIST 3370. Colonial Latin America. 3 Credit Hours.
Examine the exploration and colonization of the Spanish and Portuguese dominions in South and Central America, including political history of the colonies, the church and colonial institutions, commercial systems of Spain and Portugal, expansion into the North American borderlands, and early independence movements. Prerequisite(s): 6 hours of HIST or permission of department chair.

HIST 3371. History of Mexico Before Independence. 3 Credit Hours.
Examine Mexican history from the arrival of the first peoples through the end of the Spanish colonial era. Special emphasis on early native civilizations, especially the Maya and Aztec, as well as the incursion of the Spanish and the conquest and colonization of Mexico.

HIST 3372. History of Mexico from 1821 - Present. 3 Credit Hours.
Examine modern Mexico, including the independence movement, conflict of centralism and federalism, war with the United States, political and economic developments under Juarez, Maximilian, and Diaz, and the social revolution of the 20th century. Prerequisite(s): 6 hours of HIST or permission of department chair.

HIST 4301. United States History and the World. 3 Credit Hours.
(WI) Learn how world events influenced American history from 1789 to the present. Examine American diplomatic, economic, political, 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.

HIST 4302. Economic Development of the United States. 3 Credit Hours.
Survey the economic development of the United States from colonial times to the present. Credit for both HIST 4302 and ECON 4302 will not be awarded. Prerequisite(s): ECON 1301 or ECON 2301 and 6 hours of HIST.

HIST 4307. History Careers Outside the Classroom. 3 Credit Hours.
Examine the choices available for historians who seek careers outside of classroom teaching, including museums, historic preservation, cultural resource management, archival administration, parks, oral history, corporate history, and editing and publishing. Will not count as a history course for purposes of teacher certification. Prerequisite(s): 6 hours of HIST.

HIST 4310. 20th Century United States History. 3 Credit Hours.
Examine the recent history of the United States, with an emphasis on the political, social, cultural, and economic development of the nation. Prerequisite(s): 6 hours of HIST or permission of department chair.

HIST 4312. Topics in Women's History. 3 Credit Hours.
Explore special topics in the history of American women. May be repeated when topic varies.

HIST 4313. Topics in African American History. 3 Credit Hours.
Develop understanding of African American history through advanced study of selected topics. May be repeated when the topic varies.

HIST 4314. History of the American West. 3 Credit Hours.
Examine the history of the Great West from the Lewis and Clark expedition to the 20th century. Special emphasis on the West as a distinctive region in national politics, state building in the 19th century, and the development of agriculture, transportation, and commerce. Prerequisite(s): 6 hours of HIST or permission of department chair.

HIST 4315. History of the South. 3 Credit Hours.
Surveys southern history emphasizing distinctive factors which set the region apart from the rest of the United States, including social and cultural development. Prerequisite(s): 6 hours of HIST or permission of department chair.

HIST 4317. Topics in Native American History. 3 Credit Hours.
Examine advanced Native American history topics. May be repeated when the topic varies.

HIST 4318. Topics in Oral History. 3 Credit Hours.
Examine advanced Oral History topics, including instruction in the history, methodology, and analysis of oral history. May be repeated when the topic varies.

HIST 4327. History of Russia and Eastern Europe to 1917. 3 Credit Hours.
Examination of Russia and Eastern Europe from the ancient period to the 1917 Bolshevik Revolution. Topics include: the development of Kievan Rus, the Mongol invasion, the Time of Troubles, the French Revolution and Napoleon, the Crimean War, the growth of revolutionary movements, and major philosophical, cultural, religious, and political ideas. Prerequisite: 6 hours of History or permission of Department Chair.
HIST 4328. History of the Soviet Union and Post-Soviet Russia and Eastern Europe. 3 Credit Hours. 
Examination of the creation and the development of the Soviet Union and Post-Soviet Europe. Major events covered include: the Bolshevik Revolution, official cultural policies, World War II, the Cold War, the fall of Communism, transition to Capitalism, resurgent nationalism, and post-Communist political movements. Prerequisites: Recommended that students take History of Russia and Eastern Europe to 1917 Required: 6 hours HIST or permission of Department Chair.

HIST 4332. England and Great Britain to 1603. 3 Credit Hours. 
Explore English history from Roman Britain to the death of Queen Elizabeth and the end of the Tudor dynasty. Special emphasis on the political, legal, and religious changes which formed the foundations of modern England. Prerequisite(s): 6 hours of HIST or permission of department chair.

HIST 4333. England and Great Britain from 1603. 3 Credit Hours. 
Explore English and British history from 1603 to modern times. Special emphasis on the constitutional, political, economic, and legal changes which shaped Great Britain, including a survey of the empire and the United Kingdom. Prerequisite(s): 6 hours of HIST or permission of department chair.

HIST 4335. Social History of Modern Europe. 3 Credit Hours. 
An analysis of European society since the industrial revolution, with emphasis on the social impact of industrialization and urbanization, changing patterns of social stratification, mobility, and class conflict in the 19th and 20th centuries. Pre-requisite: 6 hours of HIST or permission of department chairperson.

HIST 4336. European Intellectual and Cultural History. 3 Credit Hours. 
Examine the fundamental ideas in the European intellectual tradition through an analysis of primary texts. Analyze the foundations of Western thought in the Judeo-Christian and Greco-Roman traditions, as well as the ideas and ideologies that have shaped modern European mentalities. Prerequisite(s): 6 hours of HIST or permission of department chair.

HIST 4337. Europe from 1919 - 1945. 3 Credit Hours. 
Examine the period from the Paris Peace conference in 1919 to the end of the Second World War in Europe. Special emphasis on political and economic instability, the rise of dictatorships, and European diplomatic crises leading to war.

HIST 4341. Revolutionary Europe from 1789 - 1814. 3 Credit Hours. 
Examine the political, social, economic, and intellectual forces unleashed in the French Revolution and Napoleonic era, beginning with a study of the Old Regime and ending with the Congress of Vienna in 1814. Special emphasis on the rise of liberalism and nationalism in Europe. Prerequisite(s): 6 hours of HIST or permission of department chair.

HIST 4345. World War II and the Holocaust. 3 Credit Hours. 
Examine European history between the rise of Fascism and Communism after the Great War to the end of World War II in 1945. Special emphasis on European diplomacy in the inter-war years, the conduct of the Second World War, and the Holocaust. Prerequisite(s): 6 hours of HIST or permission of department chair.

HIST 4364. Topics in National Histories. 3 Credit Hours. 
Examine the history of a particular state or region in depth. May be repeated for credit when the topics vary. Prerequisite(s): 6 hours of HIST or permission of department chair.

HIST 4365. History of the World since 1919. 3 Credit Hours. 
Explore major trends in world history following World War I, including the impact of the Great Depression, the rise of totalitarianism, and the coming of World War II. Special emphasis on the postwar period. Prerequisite(s): 6 hours of HIST or permission of department chair.

HIST 4380. History Seminar. 1-3 Credit Hours. 
Individual instruction in selected fields of history. Emphasis on reports and wide readings in selected fields. May be taken more than once for credit. Prerequisite(s): Senior standing or permission of department chair.

HIST 4381. Concepts of History Education. 3 Credit Hours. 
Considers the methods and techniques for presenting historical material to secondary students. Learn to organize material into a logical framework to better present the interplay of people, nations, and cultures through time. Focuses on mastery of subject areas of the Texas Examination for Educator Standards for teacher certification.

HIST 4382. Historical Method. 3 Credit Hours. 
(WI) Examine the concepts basic to historical thinking, causation, periodization, change, and continuity, the roles of social forces and individuals, and problems of interpretation, accuracy, and truth. Compare the social sciences and the humanities with an emphasis on the distinctive nature of the historical discipline as it has developed through time. Prerequisite(s): HIST 3300.

HIST 4388. History Problems. 1-6 Credit Hours. 
Independent reading, research and discussion. Entry into this course will be arranged with the history counselor.

HIST 4389. Special Topics in History. 3 Credit Hours. 
Examine important periods, regions, and themes in history. May be repeated when the topic varies.

HIST 4391. History Practicum. 3 Credit Hours. 
Gain professional experience in the 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. Prerequisite(s): HIST 4307. May be repeated once for credit. Field experience fee $75.

HIST 4395. History Senior Research Seminar. 3 Credit Hours. 
(WI) Develop and apply historical research and writing skills through the exploration of selected topics. Prerequisite(s): HIST 2311, HIST 2312, HIST 1301 and HIST 1302.

HIST 5090. History Comprehensive Examination. 0 Credit Hours. 
Comprehensive Examination for non-thesis students in the field of History. The Comprehensive Examination should be completed during the final semester of graduate coursework, or upon permission of advisor. All comprehensive examinations will be written, but an oral component may also be required. A maximum of three attempts will be allowed. Thesis students do not take this examination.

HIST 5198. History Thesis. 1-6 Credit Hours. 
Scheduled when the student is ready to begin the thesis. No credit until the thesis is completed. Prerequisite(s): 24 hours graduate credit, including HIST 5380 and at least one research seminar, and consent of major professor.

HIST 5300. Elements of Historical Inquiry. 3 Credit Hours. 
Examine history as a profession, including how historians read sources, pose questions, draw inferences, shape their narratives, and engage historical writings.
HIST 5307. Public History Seminar. 3 Credit Hours.
Examine public history careers available for master's level history graduates in areas outside of classroom teaching. This is a gateway course for all public history courses.

HIST 5308. Museum Studies. 3 Credit Hours.
Examine the theory and practice of the multiple careers available to historians in museums, including curating, collections care, educational programming, exhibits, media relations, financial development, and construction and management of facilities.

HIST 5309. Historic Preservation. 3 Credit Hours.
Examine historic preservation as an area of professional employment for historians.

HIST 5310. Archival Principles and Practices. 3 Credit Hours.
Examine the principles and practices of archival management.

HIST 5315. United States Foreign Policy since 1945. 3 Credit Hours.
Explores United States national security and foreign policy since 1945, and the historical antecedents of contemporary foreign policy challenges. Emphasis on policy decisions, domestic and bureaucratic processes, the role of intelligence, and the use of force and diplomacy.

HIST 5320. Selected Topics in State and Local History. 3 Credit Hours.
Explore selected topics in state and local history, as well as readings and research in Texas history. May be repeated when topics vary.

HIST 5322. Selected Topics in American History. 3 Credit Hours.
Research and writing on selected topics in American History. May be repeated for credit when topics vary.

HIST 5325. Readings in American History to 1877. 3 Credit Hours.
Explore the major themes and critical works in selected topics of American History to 1877. Writing assignments will include the types of writing conducted most frequently by historians, including book reviews, literature reviews, and annotated bibliographies.

HIST 5326. Readings in American History since 1877. 3 Credit Hours.
Readings and discussions of selected problems in American History since 1877. May be repeated for credit when topics vary.

HIST 5335. Europe since 1877. 3 Credit Hours.
Explore the major turning points in the history of postwar Europe, with an emphasis on the European integration movement. Themes include theories of integration, the democratic deficit, the transparency, accountability, and legitimacy of European policy processes, the Common Market, monetary integration and the Euro, common foreign, security, and the defense policy, social immigration policy, issues of enlargement, and relations between the European Union and non-EU entities.

HIST 5340. Readings In European History. 3 Credit Hours.
Readings and discussions of selected topics in early modern and modern European history. May be repeated for credit when topics vary.

HIST 5342. Selected Topics in European History. 3 Credit Hours.
Research and writing on selected topics in European history. May be repeated for credit when topics vary.

HIST 5360. Readings In World History. 3 Credit Hours.
Readings and discussion of selected topics in the history of regions and countries outside of Europe and the United States. May be repeated for credit when topics vary.

HIST 5362. Selected Topics in World History. 3 Credit Hours.
Research and writing on selected topics in World history. May be repeated for credit when topics vary. Prerequisite(s): None.

HIST 5363. The European Union. 3 Credit Hours.
Study the European Union and its constituent member states. Emphasis on the history of the European Union, its role in the postwar international system, and its impact on contemporary Europe. May be repeated for credit when topics vary.

HIST 5364. United States Foreign Policy since 1945. 3 Credit Hours.
Study United States national security and foreign policy since 1945, and the historical antecedents of contemporary foreign policy challenges. Emphasis on policy decisions, domestic and bureaucratic processes, the role of intelligence, and the use of force and diplomacy.

HIST 5366. European Union. 3 Credit Hours.
Study the European Union and its constituent member states. Emphasis on the history of the European Union, its role in the postwar international system, and its impact on contemporary Europe. May be repeated for credit when topics vary.

HIST 5368. History Problems. 1-6 Credit Hours.
Conference course exploring various topics in the study of history, with independent reading, research, and discussion, under supervision of senior professor.

HIST 5371. History Practicum. 3 Credit Hours.
Gain professional experience 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. May be repeated once for credit. Prerequisite(s): Permission of instructor and department chair. Field experience fee $75.

Reading Courses

READ 3301. Introduction to Children's Literature. 3 Credit Hours.
Study literature for children focusing on the use of classic and contemporary texts to promote interest, motivation, and critical reading skills for self-selected reading in the elementary student. Learn to use texts to emphasize literary genre, text structures, and literary devices as tools for making connections and meaning. Prerequisite(s): Required core ENGL classes for degree. Credit will not be granted for READ 3301 and ENGL 3350.

READ 3311. Literacy Development I. 3 Credit Hours.
This course addresses the theory and practice of teaching early reading. Takes into consideration theories of learning, understandings of students and their needs, and the backgrounds and interests of individual students. Study characteristics of typical and atypical reading development in the emergent/early learner, explore materials, procedures, assessments and instructional methods. Prerequisite(s): Completion of teacher education block 1 with a minimum 2.75 GPA.

READ 3320. Fundamentals of Teaching Reading. 3 Credit Hours.
(WI) This course focuses on research-based competencies essential for effective literacy instruction. Surveys characteristics of normal reading development in the elementary through middle school learner; explores materials, procedures, assessment and instructional methods considered effective in teaching oral language, writing, strategy building for comprehension, vocabulary, and word identification.
READ 3330. Reading II: Assessment, Instruction and Reader Development. 3 Credit Hours.  
(WI) Study characteristics of the transitional and fluent literacy learner, methods of assessment and instruction for strategy building, comprehension, vocabulary, word identification, and TEKS/TAKS. Examine normal reading development, reading difficulties, strategies for assessing/addressing reading differences including diverse learner reading processes and development of literacy in English or ELL. Prerequisite(s): READ 3311 and Admission to the Teacher Education Program. Concurrent enrollment in EDUC 3330.

READ 3335. Content Area Reading. 3 Credit Hours.  
(WI) Examine factors that influence learning from content text and study specific instructional strategies which promote comprehension, vocabulary development, effective study strategies, and test-taking skills. Study ways to modify text for diverse learners and the principles of research-based reading instruction. Must be admitted to the Teacher Ed Program.

READ 4304. Reading and Writing Across the Curriculum. 3 Credit Hours.  
(WI) Study theory and instructional strategies for teaching the writing process in elementary and middle schools. Learn stages of the writing process, issues at the different grade levels, teaching with mini-lessons, early literacy, spelling, handwriting, developing listening skills, process writing, and the use of children's literature to teach writing. Prerequisite(s): READ 3330 and EDUC 3330, and concurrent enrollment in READ 4305 and EDUC 4304 or EDUC 4330.

READ 4305. Implement Classroom Reading Instruction. 3 Credit Hours.  
Study state and national reading initiatives, approaches to teaching reading, procedures for organizing the elementary and middle school classrooms for reading instruction, research on effective reading-writing instruction, and roles of school personnel and parents in the school reading program. Prerequisite(s): READ 3330 and EDUC 3330, and concurrent enrollment in READ 4304 and EDUC 4304 or EDUC 4330.

READ 4312. Literacy Development II. 3 Credit Hours.  
(WI) A field-based course surveying characteristics of the transitional/ independent literacy learner, methods of instruction for writing, strategy building, comprehension, vocabulary, word identification, utilizing the Texas Essential Knowledge and Skills. Examines typical/atypical reading development and strategies for assessing/addressing reading differences in individual learners. Explores structures and features of expository text including examination of supports and challenges within the text. Prerequisite(s): Admission to teacher education program.

READ 4313. Analysis and Response. 3 Credit Hours.  
(WI) This course examines the foundational concepts, principles and best practices relating to assessment, utilizing a variety of evaluation and assessment tools. Students will analyze assessment data related to literacy development in order to plan appropriate instruction for typical/ atypical learners. In-depth analyses are prepared to communicate student literacy outcomes to various audiences. Prerequisite(s): Admission to teacher education program.

READ 5370. Literacy Development. 3 Credit Hours.  
Analyze models of the reading and writing processes. Emphasis on characteristics of emergent, early, transitional and fluent literacy instructional strategies in reading and writing, phonics instruction and strategies for teaching English language learners, and the essential knowledge and skills in the language arts curriculum. Prerequisite(s): admission to the teacher certification program.

READ 5371. Advanced Strategy for Literacy Development. 3 Credit Hours.  
Study research in literacy development from early childhood through adulthood. Learn to develop research-based literacy programs from early childhood through adulthood, apply informal diagnostic and remedial procedures for English language learners, elementary, secondary and adult readers, and survey print and non-print materials, including textbooks, trade books and computer software. Prerequisite(s): admission to the teacher certification program.

READ 5372. Language Arts. 3 Credit Hours.  
Examine research and strategies for implementing the reading/writing process in classrooms. Explore integrated curriculum, the use of children's literature, classroom management and organization, evaluation, working with diverse learners, and developing support networks. Prerequisite(s): READ 5373 or 9 hours of undergraduate READ courses or permission of department chair.

READ 5373. Foundations of Reading. 3 Credit Hours.  
Examine theoretical models of the reading process, historical perspectives on reading instruction, and language learning. Develop an understanding of the construction of reading theory and its relationship to instructional practices. Prerequisite(s): Elementary, secondary, or all-level certification or permission of department chair.

READ 5374. Reading Resources and Materials. 3 Credit Hours.  
Study print and non-print materials including content-area textbooks, trade books, and computer software. Evaluate materials and application of reading principles to instruction in content areas. Prerequisite(s): READ 5373 or 9 hours of undergraduate READ courses or permission of department chair.

READ 5375. Implementing Reading Research and Assessment. 3 Credit Hours.  
Study methods and techniques employed in reading research and assessment. Review research and the development, implementation, and dissemination of classroom research. Explore the application of appropriate diagnostic and correctional procedures for elementary, secondary, and adult learners having difficulty reading. Prerequisite(s): READ 5373 or 9 hours of undergraduate READ courses or permission of department chair.

READ 5376. Organization and Administration of Reading Programs. 3 Credit Hours.  
Study state laws, trends and issues related to the administration of reading programs. Examine instructional issues and reading programs for pre-K through adult learners, censorship issues, textbook/test adoption procedures, roles and responsibilities in the reading program, staff development, and change strategies. Prerequisite(s): READ 5373 or 9 hours of undergraduate READ courses or permission of department chair. 
Certification Fee - $150.

READ 5388. Reading Problems. 1-3 Credit Hours.  
Study of selected problems in reading. Engage in independent research, reading and discussions under the personal direction of the instructor, topics may vary according to student need. Prerequisite(s): Permission of department chair.

READ 5391. Reading Practicum. 3 Credit Hours.  
Apply knowledge gained in previous Reading Specialist certification courses. Practicum candidates will be directly involved in providing 180 clock hours of reading services to students in a local public or private school setting, and will document expertise and experience in all four Standards. Prerequisite(s): READ 5373, READ 5374, READ 5375, READ 5376 and ENGL 5321; two years of creditable classroom teaching experience. Field experience fee - $75.
B.A.A.S. Criminal Justice

OVERVIEW
The B.A.A.S. in Criminal Justice is a transfer pathway for students with an Associate of Applied Science degree. Students may complete the program by obtaining credit for the relevant program coursework, up to 33 hours, for certifications, non-academic training in the field, and industry training.

The B.A.A.S. in Criminal Justice, in conjunction with students’ experience, provides skills in law enforcement, social perceptiveness, decision-making and problem-solving, writing, and speaking. Graduates can acquire positions with law enforcement agencies, the police force, and correctional facilities, among other related fields. The program combines skills learned in the classroom with the field experience many pursuing a criminal justice degree already possess. The degree program is a practical, streamlined way for students to simultaneously advance both their education and their career, or to use their past experiences to enhance a new career field.

Students in the program find a supportive environment that challenges and empowers them to explore their individual interests in the wide realm of study in criminal justice. The Criminal Justice program is led by highly qualified faculty members who have both real-world experience and scholarly experience to enrich your learning.

Eligible students are encouraged to join the Omega Lambda chapter of Alpha Phi Sigma, the national honor society for criminal justice. Students may also join the Criminal Justice Association (CJA), which is open to criminal justice and non-criminal justice members who are interested in the field and want to engage in service within the local community and region.

Our diverse inventory of upper-level classes balances the major domains of criminal justice, including law enforcement, corrections, courts, victims, offenders, and practitioners.

Program Level Student Learning Outcomes
The student will be able to:
1. Explain concepts, major criminological theories, empirical findings, and trends in Criminal Justice.
2. Apply legal and ethical principles to the practice of Criminal Justice.
3. Describe the structure and functioning of institutions in Criminal Justice.
4. Identify the racial and ethnic issues associated with the practice of Criminal Justice.
5. Writing appropriately for upper-level coursework and criminal justice occupations.

Bachelor of Applied Arts and Science - Criminal Justice Program Requirements
Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan.
Upper-level Criminal Justice Elective 3
Upper-level Elective 3
Upper-level Elective 3
Upper-level Elective 3
Total Credit Hours 120

1 For the Occupational Specialization credits, students must have a minimum of 12 semester credit hours consisting of technical, vocational, and military training and may include academic electives to complete the maximum allowable 33 semester credit hours.

2 Lower Level Electives, Any Level Electives, Component Area Options, or Degree Requirements (DEG REQ) may consist of the FOS courses: CRJ 1301, CRJ 1306, CRJ 1310, CRJ 2313, CRJ 2328.

Courses

CRJ 1301. Introduction to Criminal Justice. 3 Credit Hours.
(080) This course provides a historical and philosophical overview of the American criminal justice system, including the nature, extent, and impact of crime; criminal law; and justice agencies and processes.

CRJ 1306. Court Systems & Practices. 3 Credit Hours.
(080) This course is a study of the court system as it applies to the structures, procedures, practices and sources of law in American courts, using federal and Texas statutes and case law.

CRJ 1307. Crime in America. 3 Credit Hours.
(080) American crime problems in historical perspective, social and public policy factors affecting crime, impact and crime trends, social characteristics of specific crimes, and prevention of crime.

CRJ 1310. Fundamentals of Criminal Law. 3 Credit Hours.
(080) This course is the study of criminal law including application of definitions, statutory elements, defenses and penalties using Texas statutes, the Model Penal Code, and case law. The course also analyzes the philosophical and historical development of criminal law and criminal culpability.

CRJ 2313. Correctional Systems & Practices. 3 Credit Hours.
(080) This course is a survey of institutional and non-institutional corrections. Emphasis will be placed on the organization and operation of correctional systems; treatment and rehabilitation; populations served; Constitutional issues; and current and future issues.

CRJ 2314. Criminal Investigation. 3 Credit Hours.
Investigative theory; collection and preservation of evidence; sources of information; interview and interrogation; uses of forensic sciences; case and trial preparation.

CRJ 2328. Police Systems & Practices. 3 Credit Hours.
(080) This course examines the establishment, role and function of police in a democratic society. It will focus on types of police agencies and their organizational structure, police-community interaction, police ethics, and use of authority.

CRJ 3300. Juvenile Delinquency. 3 Credit Hours.
Study the nature, extent, causation, treatment, and prevention of juvenile delinquency, including a survey of the procedures and operations of the juvenile justice agencies.

CRJ 3301. Female Offenders. 3 Credit Hours.
Study female offenders in the criminal justice system, including historical perspectives, juvenile offenders, programming and treatment, and prison and community corrections.

CRIJ 3305. Criminology. 3 Credit Hours.
Study and critique various theories of crime causation, including an examination of classical, biological, psychological, and sociological perspectives on the etiology of crime. May be crosslisted with SOCI 3305. Only one may be taken for credit.

CRIJ 3310. Criminal Justice Supervision and Management. 3 Credit Hours.
Study theories and principles of supervision as applied to criminal justice agencies including organization, leadership, motivation, human resources flow, and managerial ethics. Prerequisite(s): Junior classification or permission of instructor.

CRIJ 3311. Techniques of Interviewing. 3 Credit Hours.
Study interview and interrogation techniques, including preparation, environmental and psychological factors, legal issues, and ethics.

CRIJ 3315. Criminal Evidence. 3 Credit Hours.
Analyze 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 3316. Methods of Criminal Justice Research. 3 Credit Hours.
(WI) Learn the methods of criminological and criminal justice research, with emphasis on research ethics, research design, and methods of data collection and analysis.

CRIJ 3320. Policing. 3 Credit Hours.
Examine law enforcement, and the role of police in communities and society. Learn to critically evaluate policing as a profession. Special emphasis on dispelling myths and providing tools needed to reach conclusions based upon the available research in the field of police work.

CRIJ 3325. Institutional Corrections. 3 Credit Hours.
Study the structure and function of correctional systems and how various philosophies of correctional treatment affect the operation of confinement institutions.

CRIJ 3330. Community Corrections. 3 Credit Hours.
Study the philosophy, administrative procedures, and operational techniques used in the community based treatment and supervision of offenders.

CRIJ 3340. Homeland Security. 3 Credit Hours.
Study the strategic, legal, policy, operational, and organizational issues associated with the defense of the U.S. homeland from foreign and domestic terrorist threats. Examine the 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 3345. Criminal Justice and Moving Images. 3 Credit Hours.
Explore the role of film, television, and other moving images in the development of perceptions and stereotypes of criminals, victims, and criminal justice professionals, and institutions.

CRIJ 3352. Physical Aspects of Forensic Science. 3 Credit Hours.
Examines various forensic physical sciences and their relation to crime scene investigation and the collection, preservation and identification of evidence. Introduces methods of laboratory analysis of fingerprints, firearms, tool marks, and documents, and evaluates trace evidence, such as glass, soil, paint, hairs, and fibers. Materials fee $15.
CRIJ 3353. Biological Aspects of Forensic Science. 3 Credit Hours.
Examines various forensic biological sciences and their relation to crime scene investigation and the collection, preservation and identification of evidence. Introduces methods of laboratory analysis including forensic disciplines of pathology, anthropology, odontology, entomology, toxicology, serology, DNA, and blood pattern analysis. Materials fee $15.

CRIJ 3384. Criminal Justice Field Experience. 3 Credit 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. Field experience fee $75.

CRIJ 4300. Treatment in Corrections. 3 Credit Hours.
Examines the various types of treatment provided in corrections. Students learn about treatment practices and programs used in corrections, with an emphasis on evidence-based practices. Examines research on the effectiveness of treatment programs.

CRIJ 4303. Race, Crime, and Justice. 3 Credit Hours.
Examines racial profiling, immigration, and the death penalty in the context of criminal justice practice. Provides current issues regarding the relationship between race and ethnicity and all components of the criminal justice system in the US.

CRIJ 4308. Victimology. 3 Credit Hours.
This course includes a comprehensive study of victimization, including the relationship between the victims and offenders, and their interaction with the criminal justice system.

CRIJ 4312. Criminal Justice Ethics. 3 Credit Hours.
(WI) Analyze contemporary ethical issues in crime and justice. Classical and contemporary ethical theories are applied to the discussion of such issues as discretion, corruption, use of force, racism, deception, professionalism, and the nature and meaning of justice.

CRIJ 4315. Criminal Justice Statistics. 3 Credit Hours.
Learn statistical concepts and techniques that can assist in evaluating research. Techniques include measures of central tendency, dispersion, and significance. Examine hypothesis testing using t-tests, ANOVA, and Chi square, and learn to manipulate, analyze, and interpret data using SPSS.

CRIJ 4316. Methods of Criminal Justice Research. 3 Credit Hours.
(WI) Learn the methods of criminological and criminal justice research, with emphasis on research ethics, research design, and methods of data collection and analysis.

CRIJ 4320. Criminal Justice Statistics II. 3 Credit Hours.
Learn intermediate-level statistics used in Criminal Justice research, with focus on statistical analyses commonly used in hypothesis testing with an introduction to measures of association and multivariate analyses. Prerequisite(s): CRIJ 4315 or permission of instructor.

CRIJ 4350. Advanced Investigation. 3 Credit Hours.
Explore advanced criminal and civil investigation, with an introduction to special investigative techniques. Emphasis on crime scene processing, crime scene analysis, forensic evaluations, investigative techniques, and investigative surveys.

CRIJ 4351. Forensic Anthropology. 3 Credit Hours.
Applies the science of physical anthropology to the legal investigative process. Identifies human remains, as well as age, sex, ancestry, and stature of those remains and how these are used to help establish positive identification. Special emphasis placed on skeletal trauma and pathology to determine cause and manner of death. Cross-listed with ANTH 4351; only one may be taken for credit. Material fee $15.

CRIJ 4388. Criminal Justice Problems. 3 Credit Hours.
Engage in independent reading, research, and discussion on selected criminal justice topics. Entry into this course will be arranged by the instructor.

CRIJ 4389. Special Topics in Criminal Justice. 3 Credit Hours.
Explore selected criminal justice topics. Topics will vary according to timeliness and special needs. May be taken more than once for credit.

CRIJ 4395. Criminal Justice Senior Seminar. 3 Credit Hours.
(WI) Utilize knowledge of the criminal justice system in the capstone of the criminal justice curriculum. Examine current practices related to operations, recruitment, testing, training, and law, to prepare for entry to the criminal justice profession. Prerequisite(s): CRIJ 3305, CRIJ 3310 and CRIJ 4316. Restricted to senior-year CJ majors.

CRIJ 5090. Criminal Justice Comprehensive Examination. 0 Credit Hours.
Study and integrate criminal justice knowledge in order to take the criminal justice comprehensive exam for non-thesis students. Non-thesis students should register for the comprehensive examination during their final semester of graduate coursework, or upon permission of advisor. All comprehensive examinations will be written, but an oral component may also be required. A maximum of three attempts will be allowed. Thesis students do not take this examination.

CRIJ 5198. Criminal Justice Thesis. 1-3 Credit Hours.
Prepare and write a graduate thesis in the field of criminal justice. This course represents a student’s initial and continuing thesis enrollment. At least six total hours is required to complete the thesis requirement. The student continues to enroll in this course until the thesis is submitted and the thesis is successfully defended.

CRIJ 5300. Linear Regression. 3 Credit Hours.
Introduces students to statistical concepts and techniques that can assist them in evaluating research and in engaging in research on the graduate level. Both bivariate and multiple regression techniques will provide the main content of the course. Prerequisite(s): 3 hours in undergraduate or graduate statistics, or consent of instructor.

CRIJ 5301. Advanced Criminology. 3 Credit Hours.
Examine major theoretical perspectives of crime and deviance. Analyze theories for their logical and empirical adequacy in light of what is known about the distribution of crime and deviant behavior. Prerequisite(s): Undergraduate or graduate coursework in Criminology or permission of instructor.

CRIJ 5303. Race and Ethnicity. 3 Credit Hours.
Examine issues related to racial and ethnic minorities and crime in America, including perceptions of race, class, offending, and victimization. Emphasis on disparities in offending, victimization, law enforcement practices, trial process, and sentencing.

CRIJ 5304. Advanced Methods in Criminal Justice. 3 Credit Hours.
Study social scientific research methods applied to criminal justice research, and critically examine research designs and published findings. Includes an advanced review of procedures and techniques for research in criminology, law enforcement, courts, and corrections. Prerequisite(s): Undergraduate or Graduate course in Research Methods or permission of instructor.

CRIJ 5306. Criminal Justice Program Evaluation. 3 Credit Hours.
Learn to define program evaluation, the need for program evaluations, and the methods used to conduct evaluations.
Bachelor of Music

OVERVIEW

The Bachelor of Music provides student-centered, high-quality, rigorous instruction to build a complete musician in the areas of performance, musicianship, history and theory, and education. The degree offers flexibility with elective courses to pursue innovative music careers of the future. Students serve as ambassadors of music in the community and graduates are prepared for graduate study in Music and the pursuit of music careers or careers in music related fields.

Program Level Student Learning Outcomes

The student will be able to:

1. **Exhibit growth in solo performance skills, culminating in the ability to plan and perform a full senior recital.**
2. **Demonstrate skilled musicianship and teamwork as part of a performing ensemble.**
3. **Posses a thorough working knowledge of music history and theory.**
4. **Assist others in acquiring knowledge and skills in music.**
5. **Be proficient in current technology in music software and applications.**
6. **Be ambassadors of music in the community and build contacts outside of the University prior to graduation.**

Bachelor of Music - Instrumental Concentration Program Requirements

Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan.

### Code | Title | Credit Hours
--- | --- | ---
**First Year**
**Fall**
MUSI 1181 | Piano Class I | 1
MUSI 1116 | Sight Singing & Ear Training I | 1
MUSI 1311 | Music Theory I | 3
ENGL 1301 | Composition I (CORE REQ 010) | 3
MUSI 1307 | Music Literature | 3
MUSI 1071 | Student Recital | 0
MATH 1314 | College Algebra (CORE REQ 020) | 3
**Applied Music Elective**
**Music Ensembles Elective**

**Spring**
MUSI 1182 | Piano Class II | 1
MUSI 1117 | Sight Singing & Ear Training II | 1
MUSI 1310 | American Music (CORE REQ 090) | 3
MUSI 1312 | Music Theory II | 3
MUSI 1303 | Fundamentals of Music (CORE REQ 050) | 3
MUSI 1071 | Student Recital | 0
HIST 1301 | United States History I (CORE REQ 060) | 3
GOVT 2305 | Federal Government (CORE REQ 070) | 3
SPCH 1315 | Public Speaking (CORE REQ 090) | 3
**Applied Music Elective**
### Bachelor of Music - Vocal Concentration Program Requirements

Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan.

#### Code | Title | Credit Hours
--- | --- | ---
MUSI 1181 | Piano Class I | 1  
MUSI 1116 | Sight Singing & Ear Training I | 1  
MUSI 1311 | Music Theory I | 3  
ENGL 1301 | Composition I (CORE REQ (010)) | 3  
MUSI 1307 | Music Literature | 3  
MUSI 1071 | Student Recital | 0  
MATH 1314 | College Algebra (CORE REQ (020)) | 3  
MUSI 3129 | Intermediate & Advanced Band Repertoire | 1  
or MUSI 3130 | Intermediate & Advanced Orchestra Repertoire | 1  
MUSI 3134 | Brass Class | 1  
MUSI 3133 | Woodwind Class | 1  
MUSI 3135 | Vocal Class (Instrumental Majors) | 1  
MUSI 4327 | Instrumental & Marching Methods | 3  
or MUSI 4328 | Sec Orchestra & Guitar Methods | 1

### Second Year

#### Fall
- MUSI 2181 | Piano Class III | 1  
- MUSI 2116 | Sight Singing & Ear Training III | 1  
- MUSI 2311 | Music Theory III | 3  
- MUSI 1071 | Student Recital | 0  
- ENGL 1302 | Composition II (CORE REQ (010)) | 3  
- HIST 2311 | Western Civilization I (CORE REQ (040)) | 3  
- or HIST 2312 | Western Civilization II | 3

#### Spring
- MUSI 2182 | Piano Class IV | 1  
- MUSI 2117 | MUSI 2117 Sight Singing & Ear Training IV (1 SCH version) | 1  
- MUSI 2312 | Music Theory IV | 3  
- MUSI 1071 | Student Recital | 0  
- GOVT 2306 | Texas Government (CORE REQ (070)) | 3  
- HIST 1302 | United States History II (CORE REQ (060)) | 3  
- MUSI 1307 | Music Literature | 3  
- MUSI 1071 | Student Recital | 0  
- MATH 1314 | College Algebra (CORE REQ (020)) | 3  
- MUSI 1182 | Piano Class II | 1  
- MUSI 1117 | Sight Singing & Ear Training II | 1
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<td>MUSI 1303</td>
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<td>MUSI 1071</td>
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<td>MUSI 1071</td>
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<td>SPCH 1315</td>
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<tr>
<td>MUSI 1312</td>
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<td>MUSI 1071</td>
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**Second Year** ²

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<tr>
<td>Fall</td>
<td>MUSI 2181</td>
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<td>Fall</td>
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**Third Year** ³

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<td>Fall</td>
<td>MUSI 3263</td>
<td>Form &amp; Analysis</td>
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<td>F A 3347</td>
<td>Music History to 1750</td>
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<tr>
<td>Fall</td>
<td>MUSI 3137</td>
<td>Percussion</td>
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<td>Fall</td>
<td>MUSI 3343</td>
<td>Computer Assisted Electronic Music</td>
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<td>Fall</td>
<td>MUAP 3269</td>
<td>Private Lesson Instruction V</td>
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<tr>
<td>Spring</td>
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**Fourth Year** ⁴

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<td>Fall</td>
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<td>Private Lesson Instruction VI</td>
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<tr>
<td>Fall</td>
<td>MUSI 4207</td>
<td>Advanced Conducting</td>
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<tr>
<td>Fall</td>
<td>MUSI 4326</td>
<td>Elementary Music Methods</td>
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</tr>
<tr>
<td>Spring</td>
<td>MUSI 3161</td>
<td>Diction for Singers</td>
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<tr>
<td>Spring</td>
<td>MUSI 3259</td>
<td>Choral Repertoire</td>
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</table>

**Total Credit Hours** 120

1. Lower Level Electives, Any Level Electives or Degree Requirements (DEG REQ) may consist of the FOS courses: MUSI 1311, MUSI 1312, MUSI 2311, MUSI 2312, MUSI 1116, MUSI 1117, MUSI 2116, MUSI 2117, MUSI 1307, 4 credit hours MUEN ensemble, 8 credit hours MUAP applied study.

2. Summer semesters may be required to meet degree requirements throughout the program.

3. Bachelor Of Music - Instrumental Education Minor Program Requirements

Refer to the General Education Core Requirements page for more information on the CORE REQ coursework. The Field of Study (FOS) Courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan.

College of Education application for admission to program and faculty advisement is required prior to enrolling in secondary teacher certification preparation courses. *

Please note the following courses require a grade of 'C' or better: 12 credit hours of English, College Algebra, approved Educational Psychology course, and 15 credit hours in the certification subject area.

This program is designed for students wanting to teach Music at all levels.

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<th>Credit Hours</th>
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<tr>
<td>MUSI 3052</td>
<td>Beginning Conducting</td>
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<tr>
<td>F A 3350</td>
<td>World Music</td>
<td>3</td>
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<tr>
<td>MUSI 4098</td>
<td>Senior Recital</td>
<td>0</td>
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<tr>
<td>MUSI 3162</td>
<td>Opera Workshop</td>
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<tr>
<td>MUSI 4312</td>
<td>Vocal Pedagogy</td>
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<tr>
<td>MUSI 3161</td>
<td>Diction for Singers</td>
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<tr>
<td>Music Ensembles Elective</td>
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</table>

**Bachelor Of Music - Instrumental Education Minor Program Requirements**

Refer to the General Education Core Requirements page for more information on the CORE REQ coursework. The Field of Study (FOS) Courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan.

College of Education application for admission to program and faculty advisement is required prior to enrolling in secondary teacher certification preparation courses. *

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<td>MUSI 4105</td>
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**Bachelor Of Music - Instrumental Education Minor Program Requirements**

Refer to the General Education Core Requirements page for more information on the CORE REQ coursework. The Field of Study (FOS) Courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan.

College of Education application for admission to program and faculty advisement is required prior to enrolling in secondary teacher certification preparation courses. *

Please note the following courses require a grade of 'C' or better: 12 credit hours of English, College Algebra, approved Educational Psychology course, and 15 credit hours in the certification subject area.

This program is designed for students wanting to teach Music at all levels.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
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<tbody>
<tr>
<td>MUSI 3264</td>
<td>Orchestration</td>
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</tr>
<tr>
<td>MUAP 3270</td>
<td>Private Lesson Instruction VI</td>
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<tr>
<td>MUSI 4105</td>
<td>Beginning Conducting</td>
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</tr>
<tr>
<td>F A 3350</td>
<td>World Music</td>
<td>3</td>
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<tr>
<td>Music Ensembles Elective</td>
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</table>

**Bachelor Of Music - Instrumental Education Minor Program Requirements**

Refer to the General Education Core Requirements page for more information on the CORE REQ coursework. The Field of Study (FOS) Courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan.

College of Education application for admission to program and faculty advisement is required prior to enrolling in secondary teacher certification preparation courses. *

Please note the following courses require a grade of 'C' or better: 12 credit hours of English, College Algebra, approved Educational Psychology course, and 15 credit hours in the certification subject area.

This program is designed for students wanting to teach Music at all levels.

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<thead>
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<th>Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>MUSI 3264</td>
<td>Orchestration</td>
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<td>Private Lesson Instruction VI</td>
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</tr>
<tr>
<td>MUSI 4105</td>
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<td>F A 3350</td>
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<td>MUSI 1311</td>
<td>Music Theory I</td>
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<tr>
<td>ENGL 1301</td>
<td>Composition I (CORE REQ (010))</td>
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<tr>
<td>MUSI 1307</td>
<td>Music Literature</td>
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<tr>
<td>MATH 1314</td>
<td>College Algebra (CORE REQ (020))</td>
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<td>MUSI 2116</td>
<td>Sight Singing &amp; Ear Training III</td>
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<td>MUSI 2311</td>
<td>Music Theory III</td>
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<td>SPCH 1315</td>
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<td>HIST 2311</td>
<td>Western Civilization I (CORE REQ (040))</td>
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<td>or HIST 2312</td>
<td>Western Civilization II</td>
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<tr>
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<tr>
<td>Spring</td>
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<tr>
<td>MUSI 2117</td>
<td>MUSI 2117 Sight Singing &amp; Ear Training IV (1 SCH version)</td>
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<td>MUSI 2312</td>
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<tr>
<td>GOVT 2306</td>
<td>Texas Government (CORE REQ (070))</td>
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<tr>
<td>HIST 1301</td>
<td>United States History I (CORE REQ (060))</td>
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<td>Third Year</td>
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<td>Fall</td>
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<tr>
<td>MUSI 3263</td>
<td>Form &amp; Analysis</td>
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<td>F A 3349</td>
<td>Music History from 1750</td>
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<td>MUSI 3137</td>
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<td>MUAP 3269</td>
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<td>MUSI 4105</td>
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**Fourth Year - Admission to Secondary Education Certification Required**

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<tr>
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<td>F A 3350</td>
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<td>MUSI 3133</td>
<td>Woodwind Class</td>
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<td>F A 3347</td>
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<td>MUSI 4207</td>
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<td>MUSI 4098</td>
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<td>MUSI 3138</td>
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<td>MUSI 3134</td>
<td>Brass Class</td>
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<tr>
<td>HIST 1302</td>
<td>United States History II (CORE REQ (060))</td>
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**Bachelor Of Music - Vocal Education Minor Program Requirements**

Refer to the General Education Core Requirements page for more information on the CORE REQ coursework. The Field of Study (FOS) Courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan.

College of Education application for admission to program and faculty advisement is required prior to enrolling in secondary teacher certification preparation courses.*
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This program is designed for students wanting to teach Music at all levels.

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<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
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<tr>
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<tr>
<td></td>
<td><strong>Fall</strong></td>
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<tr>
<td></td>
<td>MUSI 1116 Sight Singing &amp; Ear Training I</td>
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<td>MUSI 1311 Music Theory I</td>
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<td>ENGL 1301 Composition I (CORE REQ 010)</td>
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<td>MUSI 1307 Music Literature</td>
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<td>MATH 1314 College Algebra (CORE REQ 020)</td>
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<td></td>
<td><strong>Music Ensembles Elective ¹</strong></td>
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<td></td>
<td><strong>Spring</strong></td>
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<td></td>
<td>MUSI 1117 Sight Singing &amp; Ear Training II</td>
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<td>MUSI 1310 American Music (CORE REQ 050)</td>
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<td><strong>Second Year</strong></td>
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<td>SPCH 1315 Public Speaking (CORE REQ 090)</td>
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<td>HIST 2311 Western Civilization I (CORE REQ 040)</td>
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<td>GOVT 2306 Texas Government (CORE REQ 070)</td>
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<td>HIST 1301 United States History I (CORE REQ 060)</td>
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<td></td>
<td><strong>Fourth Year - Admission to Secondary Education Certification</strong> Required*</td>
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<td><strong>Fall</strong></td>
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<td></td>
<td>MUED 3343 Technology Application Music</td>
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<td>MUED 4326 Elementary Music Experience</td>
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<td>MUED 4329 Secondary Choral Methods</td>
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<td>READ 3335 Content Area Reading</td>
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<td>EDUC 4337 Educating Secondary Exceptional Learners</td>
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<td>EDUC 4335 Capstone for Educators</td>
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<td>EDUC 4691 Clinical Teaching</td>
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<td><strong>Total Credit Hours</strong></td>
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1 Lower Level Electives, Any Level Electives or Degree Requirements (DEG REQ) may consist of the FOS courses: MUSI 1311, MUSI 1312, MUSI 2311, MUSI 2312, MUSI 1116, MUSI 1117, MUSI 2116, MUSI 2117, MUSI 1307, 4 credit hours MUEN ensemble, 8 credit hours MUAP applied study.

2 Summer semesters may be required to meet degree requirements throughout the program.
Education Courses

EDUC 1100. Learning Frameworks. 1 Credit Hour.
A study of the: research and theory in the psychology of learning, cognition, and motivation; factors that impact learning, and application of learning strategies. Theoretical models of strategic learning, cognition, and motivation serve as the conceptual basis for the introduction of college-level student academic strategies. Students use assessment instruments (e.g., learning inventories) to help them identify their own strengths and weaknesses as strategic learners. Students are ultimately expected to integrate and apply the learning skills discussed across their own academic programs and become effective and efficient learners. Students developing these skills should be able to continually draw from the theoretical models they have learned. (Cross-listed as PSYC 1300).

EDUC 1200. Learning Frameworks. 2 Credit Hours.
A study of the: research and theory in the psychology of learning, cognition, and motivation serve as the conceptual basis for the introduction of college-level student academic strategies. Students use assessment instruments (e.g., learning inventories) to help them identify their own strengths and weaknesses as strategic learners. Students are ultimately expected to integrate and apply the learning skills discussed across their own academic programs and become effective and efficient learners. Students developing these skills should be able to continually draw from the theoretical models they have learned. (Cross-listed as PSYC 1300).

EDUC 1300. Learning Frameworks. 3 Credit Hours.
A study of the: research and theory in the psychology of learning, cognition, and motivation serve as the conceptual basis for the introduction of college-level student academic strategies. Students use assessment instruments (e.g., learning inventories) to help them identify their own strengths and weaknesses as strategic learners. Students are ultimately expected to integrate and apply the learning skills discussed across their own academic programs and become effective and efficient learners. Students developing these skills should be able to continually draw from the theoretical models they have learned. (Cross-listed as PSYC 1300).

EDUC 1301. Introduction to the Teaching Profession. 3 Credit Hours.
An enriched, integrated pre-service course and content experience that provides active recruitment and institutional support of students interested in a teaching career, especially in high need fields. The course provides students with opportunities to participate in early field observations at all levels of P-12 schools with varied and diverse 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 for Educator Certification Pedagogy and Professional Responsibilities standards; and the course must include a minimum of 16 contact hours of field experience in P-12 classrooms.

EDUC 2301. Introduction to Special Populations. 3 Credit Hours.
(080) An enriched, integrated pre-service course and content experience that provides an overview of schooling and classrooms from the perspectives of language, gender, socioeconomic status, ethnic and academic diversity, and equity with an emphasis on factors that facilitate learning. The course provides students with opportunities to participate in early field observations of P-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 3300. World Regional Geography for Educators. 3 Credit Hours.
Examine practices for teaching World Regional Geography. Required for a Bachelor of Science degree in Interdisciplinary Studies and for teacher certification. Must be completed before students attempt the TExES, the teacher certification exam, and before student teaching.

EDUC 3310. Theories of Learning. 3 Credit Hours.
(WI) This course examines influential learning theories and the implications of these theories for educational practice. Survey of seminal theorists and their contributions to understanding how learning occurs and how learners develop and construct meaning to acquire knowledge and skills. This course should be taken in the first block of the teacher education program. Prerequisite(s): Admission to teacher education block 1.

EDUC 3315. Literacy Instruction for Bilingual Classroom. 3 Credit Hours.
Examine knowledge and skills required to teach limited English language learners, with an emphasis on program implementation, curriculum, materials, oral language, literacy development and assessment strategies. Spanish and English will be spoken in this class. Prerequisite(s): Passing scores on the BTLPT – Spanish (Bilingual Target Language Proficiency Test) – Spanish, EDUC 3325, EDUC 3320 and READ 3311.

EDUC 3320. Professional Development in Learner Centered Schools. 3 Credit Hours.
Examine students in learner centered schools. Study lesson planning, learning styles and strengths of diverse learners, learner-centered instruction, instructional strategies, lesson plans, TEKS educational equality, and the professional standards of educators. Technology lab and documentation of field experiences are required. Certification Fee - $150.

EDUC 3325. Fundamentals of Bilingual and English as a Second Language Education. 3 Credit Hours.
Examine history, philosophies, theoretical, and legal foundations regarding Bilingual/English as a Second Language education. Learn the knowledge and skills required to teach English Language Learners, with an emphasis on instructional strategies. Prerequisite(s): EDUC 3320.

EDUC 3330. Professional Development II: Effective Instruction. 3 Credit Hours.
Examine the relationship between the state-adopted curriculum, learner-centered proficiencies, and best practices. Study lesson cycles, models of learning, instruction, uses of technology, assessment, classroom management, micro-teaching and field experience. Classroom management lab and documentation of field experiences are required. Prerequisite(s): EDUC 3320 and admission to the Teacher Education Program.
EDUC 3340. Mathematics Instruction for Classroom Teachers. 3 Credit Hours.
Study for preservice educators to plan, organize, deliver, and evaluate developmentally appropriate educational strategies and instructional techniques in teaching mathematics to diverse learners. Design responsive instruction appropriate for all learners which reflects an understanding of relevant mathematics content, promotes active engagement, and is based on continuous and appropriate assessment.

EDUC 3350. Science Instruction for Classroom Teachers. 3 Credit Hours.
Study for preservice educators to plan, organize, deliver, and evaluate developmentally appropriate educational strategies and instructional techniques in teaching science to diverse learners. Design responsive instruction appropriate for all learners which reflects an understanding of relevant science content, promotes active engagement, and is based on continuous and appropriate assessment.

EDUC 3360. The Arts for Educators. 3 Credit Hours.
This methods course is concerned with providing experience for preservice educators to plan, organize, deliver, and evaluate developmentally appropriate educational strategies and instructional techniques in teaching the arts to diverse learners. The students design responsive instruction appropriate for all learners which reflects an understanding of relevant music, art and theater content, promotes active engagement, and is based on continuous and appropriate assessment.

EDUC 3370. Instructional Strategies. 3 Credit Hours.
This course is designed to develop advanced strategies to identify readiness for learning; and to understand when and how to adjust content, process, or product in order to differentiate responsive instruction effectively. This course should be taken in the second block of the teacher education program. Certification Fee - $150. Prerequisite(s): Completion of teacher education block 1 with a minimum 2.75 GPA.

EDUC 3420. Instructional Planning and Delivery. 4 Credit Hours.
This course addresses the lesson cycle; instructional models; use of technology to enhance instruction; resources to plan, deliver and assess instruction; the role of assessment in driving instruction; Texas Essential Knowledge and Skills (TEKS) and the curricula scope and sequence. This course should be taken in the first block of the teacher education program. Prerequisite(s): Admission to teacher education block 1.

EDUC 3430. The Learner and the Learning Environment. 4 Credit Hours.
This course introduces various classroom organizational strategies, offers preservice teachers ideas for effective classroom management, and develops an understanding of the value of collaborating within the school community. The course addresses the creation of safe and supportive learning environments that foster high levels of student engagement and maximize student learning. This course should be taken in the first block of the teacher education program. Prerequisite(s): Admission to teacher education block 1.

EDUC 4304. Early Childhood Environments Professional Development III. 3 Credit Hours.
Study all aspects of classroom management, including the physical environment and use of centers for diverse groups of early elementary students. Examine current issues related to early childhood education. Demonstrate developmentally appropriate effective teaching practices in field-based setting. Prerequisite(s): Admission to the Teacher Education Program, Application for Practicum, READ 3330, EDUC 3325, EDUC 3330, EDUC 3340 and EDUC 3350; Concurrent enrollment in READ 4304, READ 4305 and EDUC 4320. Field experience fee $75.

EDUC 4305. Language Concepts and Proficiencies in a Bilingual Classroom. 3 Credit Hours.
Examine curriculum requirements as applicable to bilingual education, language concepts and proficiencies needed for teaching language arts, math, science, and social studies in bilingual classrooms. Evaluate commercial and research-based programs in order to adapt materials for students with varying degrees of language and literacy proficiency. Field experiences required. Prerequisite(s): Passing scores on the BTLPT – Spanish (Bilingual Target Language Proficiency Test-Spanish), EDUC 3325, EDUC 3315, READ 3311 and READ 3335.

EDUC 4312. Literacy Development II. 3 Credit Hours.
(WI) A field-based course surveying characteristics of the transitional/independent literacy learner; methods of instruction for writing, strategy building, comprehension, vocabulary, word identification, utilizing the Texas Essential Knowledge and Skills. Examines typical/atypical reading development and strategies for assessing/addressing reading differences in individual learners. Explores structures and features of expository text including examination of supports and challenges within the text.

EDUC 4315. Elementary Curriculum, Assessment and Instruction. 3 Credit Hours.
Implement assessment-driven instruction and curricular design in interdisciplinary contexts. Apply knowledge of developmental stages, learner needs, and the stated expectations of TEKS in the core content areas to design, implement, and evaluate an interdisciplinary curriculum. Study effective teaching practices, problem based learning and technology applications. Pre-requisites EDUC 3320, EDUC 3330 and concurrent enrollment in EDUC 4304, READ 4304 and READ 4305.

EDUC 4317. Assessment & Interpretation for Secondary Teachers. 3 Credit Hours.
This course is for students seeking a secondary certification to examine technology driven design and implementation of data-driven instruction to include the implementation of effective assessments, student data collection, analysis, interpretation, and communication aligned to learning goals for a diverse student population. The objective of this course if for the secondary pre-service teachers to be able to demonstrate the ability to effectively collect, analyze and communicate student data for continuous teaching and learning for diverse students. Prerequisite(s): Admittance into the Teacher Education Program. Field Experience required. Field Experience Fee: $25.

EDUC 4320. Integrated Social Studies Methods, EC-8. 3 Credit Hours.
This methods course is concerned with providing experience for preservice educators to plan, organize, deliver, and evaluate developmentally appropriate educational strategies and instructional techniques in teaching Social Studies through the integration of English Language Arts and Fine Arts. It correlates social studies content with the National Council of Social Studies Strands and disciplines and the Texas Essential Knowledge and Skills. This course should be taken in the third block of the teacher education program. Prerequisite(s): Prerequisite: Admission to teacher education program.

EDUC 4325. History for Educators. 3 Credit Hours.
This methods course is concerned with providing experience for pre-service educators to plan, organize, deliver, and evaluate developmentally appropriate educational strategies and instructional techniques in teaching US, Texas and world history to diverse learners. The students design responsive instruction appropriate for all learners which reflects an understanding of relevant history content, promotes active engagement, and is based on continuous and appropriate assessment.
EDUC 4330. Professional Development III. 3 Credit Hours.
Field-based and practicum experiences are required in school settings, where students plan units of instruction, examine various models of instruction, analyze classroom management strategies, and demonstrate competencies in effective teaching practices. Prerequisite(s): Admission to the Teacher Education Program, EDUC 3330 and READ 3335. Field experience fee - $75.

EDUC 4331. Curriculum & Instruction for Secondary Teachers. 3 Credit Hours.
The course will study lesson planning, lesson cycles, learning styles and strengths of diverse learners. Additionally, teacher candidates will explore learner-centered instruction and strategies, brain-based learning, cooperative learning, assessment, classroom management, integration of technology, and the state-adopted curriculum (TEKS). The teacher candidates will examine the relationship between the state-adopted curriculum, learner-centered proficiency, and best practices. Field experiences 25 hours are required as well as $25 field experience fee. Additionally, a fee of $150 is due for certification. Prerequisite(s): Admission to the Teacher Education Program.

EDUC 4332. Classroom Management for Secondary Teachers. 3 Credit Hours.
This course provides secondary educators with knowledge and skills to create safe, supportive, and respectful learning environments. Students will analyze classroom management strategies and examine various modes of instruction. An analysis of legal and ethical issues as they relate to the classroom are an important component of the course. Secondary students will have field-based experience based on in-school settings. Admittance into the Teacher Education Program. Prerequisite(s): Admittance into the Teacher Education Program. Field Experience Fee: $25.

EDUC 4335. Capstone for Educators. 3 Credit Hours.
Capstone is a culminating course designed for teacher candidates to synthesize their knowledge across the program through the development of artifacts that demonstrate effective integration of content understanding and pedagogical skills. The teacher candidates will analyze student learning and reflect on their teaching effectiveness in order to facilitate learning for all students. Prerequisite(s): Admittance to the Teacher Education Program, successful completion of Content Certification Examination, and concurrent enrollment in Clinical Teaching (EDUC 4691).

EDUC 4337. Educating Secondary Exceptional Learners. 3 Credit Hours.
This course provides instruction in the historical, philosophical, and legal foundations of exceptional education as related to current issues and practices in educational settings. It comprises issues and trends that include transition – related instruction, postsecondary programs, and adaptability to and in secondary classrooms. Teacher candidates will develop an awareness of legal aspects of exceptional education as well as needs and services specific to students with specific needs in the secondary classroom. Prerequisite(s): Field experience required. Field experience fee $25.

EDUC 4340. Technology Application and Integration for Classroom Teachers. 3 Credit Hours.
Study for preservice educators to plan, organize, deliver, and evaluate instruction for diverse learners through the effective use and integration of current technology. Use of technology for ethical and professional communication with colleagues, community, and students. Prerequisite(s): Admission to Clinical Teaching; successful completion of designated content area Texas Examination of Educator Standards (TExES); concurrent enrollment in EDUC 4691 and EDUC 4335 or permission of department chair.

EDUC 4345. Mathematics & Science Methods in the Elementary Classroom. 3 Credit Hours.
This purpose of this course is to help preservice teachers discover how elementary children think and learn about mathematics. Examines the curriculum foundations and instructional methods for elementary mathematics. Building upon previous mathematical knowledge, and with a focus on supporting high quality mathematics education, this course provides resources and opportunities for experience with a number of instructional strategies and manipulatives. Science instruction focuses on the methods, materials and approaches for teaching science, including developmentally appropriate introductions to the physical, earth and life sciences. This course should be taken in the third block of the teacher education program. Prerequisite(s): Admission to teacher education program.

EDUC 4384. Classroom Teaching Internship. 3 Credit Hours.
Explore 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. May be repeated for credit. Prerequisite(s): Admission to the Teacher Education Program. Field experience fee - $75.

EDUC 4388. Education Problems. 1-3 Credit Hours.
Study of selected problems in education. Engage in independent research, reading and discussions under the personal direction of the instructor; topics may vary according to student need. Prerequisite(s): Junior or senior standing, admission to the Teacher Education Program and permission of Curriculum and Instruction Program Coordinator.

EDUC 4484. Field Experience. 4 Credit Hours.
Supervised field-based experiences in public school classrooms. Major emphasis is placed on the identification and exploration of instructional strategies, the learning environment, and professional practices designed to prepare for clinical teaching. This course should be taken in the third block of the teacher education program. Field experience fee: $75.00 Prerequisite(s): Admission to teacher education program.

EDUC 4691. Clinical Teaching. 6 Credit Hours.
Explore supervised clinical teaching in the public schools at the appropriate level (1-18). A demonstration of proficiency in the application of effective teaching practices and classroom management strategies is required. Prerequisite(s): Admission to Clinical Teaching and the successful completion of designated content area of the Texas Examination of Educator Standards (TExES). Concurrent enrollment in EDUC 4335 and EDUC 4340*, or permission of department chair. * 7-12 math students may take MATH 3315 in place of EDUC 4340. Field experience fee - $75.

EDUC 5090. Education Comprehensive Examination. 0 Credit Hours.
Study and take the education examination for Non-thesis students. Register for the comprehensive examination during final semester of graduate coursework, or upon permission of advisor. All comprehensive examinations will be written, but an oral component may also be required. A maximum of three attempts will be allowed. Thesis student do not take this examination.

EDUC 5198. Education Thesis. 1-6 Credit Hours.
Independent research course in which a student proposes and completes an original, quantitative research project. Scheduled when the student is ready to begin thesis. No credit awarded until proposal and thesis are complete. Prerequisite(s): Completion of all other coursework required for the degree and consent of the major professor or permission of department chair.
EDUC 5300. Foundations and History of Education. 3 Credit Hours.
Examine history of education in the United States through a study of the philosophical, historical, psychological and social foundations of curriculum. Emphasis is on the development of a philosophy of education and critical thinking about issues in education. Students must complete this course within the first twelve semester hour of graduate study.

EDUC 5301. Readings in Professional Development. 3 Credit Hours.
Examine current issues in the professional development of educators. Study 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. Cultural Diversity in Schools and Community. 3 Credit Hours.
Examine various dimensions of culture related to teaching, learning, and support services in the community. Study ethnicity, socio-economic status, language, gender, religion, age, and exceptionality.

EDUC 5304. Human Development. 3 Credit Hours.
Analyze human behavior with emphasis on the child, adolescent, and adult learner. Develop insight and social and cultural forces in the formation of personality, the self, and roles in group membership.

EDUC 5306. Adult Education. 3 Credit Hours.
Examine philosophy and concepts of adult education including the role of the adult educator, setting of objectives, integration of adult learning with career goals or changes and assessment of educational needs of adults.

EDUC 5311. Methods of Effective Teaching. 3 Credit Hours.
Study research on effective teaching practices with an emphasis on direct instruction. Learn mastery learning, assessment of learning and use of assessment to guide instruction. Apply technology and effective teaching practices to the design and delivery of instruction. Technology lab is required. Certification Fee - $150.

EDUC 5312. Language and Social Studies Seminar. 3 Credit Hours.
Learn to teach Social Studies through the application of the writing process, reading/writing connections, and children's literature. Prerequisite(s): 18 hours of professional education course work.

EDUC 5314. Creating and Managing Learning Environment. 3 Credit Hours.
Learn to create and maintain a positive learning environment. Study cultural dimensions of classroom management, motivating student achievement, fostering cooperation among students, reinforcing appropriate behavior, and ethics and law governing teacher-student relations. Apply teaching and classroom management practices in a clinical laboratory setting.

EDUC 5322. Teaching Mathematics and Science. 3 Credit Hours.
Study 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. 3 Credit Hours.
Study early childhood education curriculum and practices. Examine current trends in early childhood curriculum with an emphasis on the modifications needed to ensure the success of all young children. Prerequisite(s): 18 hours of professional educational course work.

EDUC 5338. Curriculum Design and Implementation. 3 Credit Hours.
Explore curriculum selection, design, implementation, and evaluation processes within the classroom and school district settings. Study factors that influence curriculum decision-making processes and a review of theories of curriculum development. Major emphasis on curriculum alignment and curriculum auditing.

EDUC 5340. Evidence Based Teaching. 3 Credit Hours.
In this course, participants will learn about various instructional strategies to enhance learning experiences in education. The class will cover appropriate methods and techniques from basic principles of learning and brain-based/whole-brain techniques. The course will also foster the development of skills needed in cooperative planning, selecting, and organizing teaching materials, utilization of the environment, individual and group guidance, and evaluation activities.

EDUC 5345. Advanced Instructional Strategies for Diverse Learners. 3 Credit Hours.
Study appropriate methods and techniques from basic principles of learning. Develop 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 and Interpretation for Education Leaders. 3 Credit Hours.
Examine 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 Programs. 3 Credit Hours.
Study 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.
Study 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.
Study theories and models of creativity. Emphasis will be given to identifying the creative potential of students in all classrooms. Examine and develop instructional processes which accommodate the needs of creative learners. Prerequisite(s): EDUC 5360.

EDUC 5364. Curriculum and Material Development For Gifted Learners. 3 Credit Hours.
Study a comparison of regular and gifted curricula with a focus on developing an interdisciplinary curriculum for gifted learners. Examine and evaluate existing materials and equipment which support instruction for the gifted in both regular and special programs. Emphasis will be on developing and evaluating teacher constructed materials. Prerequisite(s): EDUC 5360.

EDUC 5366. Instruction and Evaluation For Gifted Learners. 3 Credit Hours.
Analyze methods of determining specific learning styles and talents, with emphasis placed on implementing appropriate instruction for programs. Learn methods and tools of informal and formal evaluation and assessment. Prerequisite(s): EDUC 5360 and EDUC 5364.

EDUC 5369. Education Seminar. 1-3 Credit 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 5370. Techniques of Research. 3 Credit Hours.
Explore fundamental concepts and tools of research applied to psychological and educational problems. Study rationale of research, analysis of problems, library skills, sampling, appraisal instruments, statistical description and inference, writing the research report, and representative research designs.

EDUC 5384. Teaching Internship. 3 Credit Hours.
Gain field-based experience in classroom teaching. Interns must demonstrate proficiency in applying effective teaching practices and classroom management strategies in a school classroom. Prerequisite(s): admission to a teacher certification program; satisfactory performance in the professional development courses preceding the internship. May be repeated for credit. Field experience fee - $75 or Internship fee - $1500 (effective fall 2016).

EDUC 5385. Teaching Internship II. 3 Credit Hours.
Explore a 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(s): Admission to a teacher certification program at TAMUCT; satisfactory performance in the professional development courses preceding the internship; Second semester Prerequisite(s): EDUC 5384. Field experience fee - $75 or Internship fee - $1500 (effective fall 2016).

EDUC 5388. Special Education Problems. 1-6 Credit Hours.
Study of selected problems in special education. Engage in independent research, reading and discussions under the personal direction of the instructor; topics may vary according to student need. Open to graduate students who are capable of developing a problem independently. Prerequisite(s): Graduate major in Education.

EDUC 5389. Special Topics In Education. 3 Credit Hours.
Examine 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 course may be repeated for credit as topic changes. Prerequisite(s): Permission of instructor.

EDUC 5391. Gifted Education Practicum. 3 Credit Hours.
Supervise 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. Prerequisite(s): Successful completion of EDUC 5360, EDUC 5362, EDUC 5364 and EDUC 5366.

Music-Applied Courses

MUAP 3269. Private Lesson Instruction V. 2 Credit Hours.
This course is designed to provide individualized instruction in solo technique and repertoire for the musical performer. Prerequisite: 4 semesters of private instruction.

MUAP 3270. Private Lesson Instruction VI. 2 Credit Hours.
This course is designed to provide individualized instruction in solo technique and repertoire for the musical performer. Prerequisite: 5 semesters of private instruction.

MUAP 4269. Private Lesson Instruction VII. 2 Credit Hours.
This course is designed to provide individualized instruction in solo technique and repertoire for the musical performer. Prerequisite: 6 hours of private instruction.

MUAP 4270. Private Lesson Instruction VIII. 2 Credit Hours.
This course is designed to provide individualized instruction in solo technique and repertoire for the musical performer. Prerequisite: 7 semesters of private instruction; Corequisite: MUSI 4098 (Senior Recital) required.

Music Education Courses

MUED 3343. Technology Application Music. 3 Credit Hours.
Microcomputers in generation and control of electronic music. Study of one or more commonly available microcomputer programs for MIDI application. Includes technology for music teachers. Prerequisite(s): admission to teacher education program.

MUED 4326. Elementary Music Experience. 3 Credit Hours.
This course is designed to facilitate the development of skills, techniques, understandings, and professional dispositions which are necessary for elementary music educators. This course is designed to prepare prospective elementary music educators, public school or secular group, in both musical and non-musical aspects of being a music educator. Prerequisite(s): admission to teacher education program.

MUED 4327. Instrumental Music Methods. 3 Credit Hours.
This course is designed to facilitate the development of skills, techniques, understandings, and professional disposition which are necessary for instrumental music educators with a band (wind and percussion) emphasis. This course is designed to prepare prospective instrumental music educators, public school or secular group, in both musical and non-musical aspects of being a music educator. Prerequisite(s): admission to teacher education program.

MUED 4328. Orchestra Music Methods. 3 Credit Hours.
This course is designed to facilitate the development of skills, techniques, understandings, and professional dispositions which are necessary for orchestra and guitar music educators. This course is designed to prepare prospective instrumental music educators, public school or secular group, in both musical and non-musical aspects of being a music educator. Prerequisite(s): admission to teacher education program.

MUED 4329. Secondary Choral Methods. 3 Credit Hours.
A study of choral repertoire since the middle ages, with an emphasis on programming and teaching choral music to others. Prerequisite(s): admission to teacher education program.

Music Ensemble Courses

MUEN 3121. Symphonic Band. 1 Credit Hour.
Rehearsal and performance of quality concert band literature from a variety of styles. Open to any student by audition only.

MUEN 3123. Orchestra. 1 Credit Hour.
Rehearsal and performance of quality orchestral literature from a variety of styles. Open to any student by audition only.

MUEN 3124. Jazz Ensemble. 1 Credit Hour.
Rehearsal and performance of quality jazz ensemble literature from a variety of styles. Open to any student by audition only.

MUEN 3142. Chorale. 1 Credit Hour.
Designed to give participants a challenging, stylized choral experience. Performs a wide variety of literature, emphasizing the more difficult choral works. Open to any student by audition.

Music Courses

MUSI 1071. Student Recital. 0 Credit Hours.
Recital attendance credit for music majors and minors. Required of all music majors and minors. This course may be repeated for credit.
MUSI 1114. Piano Class for Music Majors I. 1 Credit Hour.
Class piano instruction for music majors with an emphasis on the practical application of music theory involving harmonization, transposition, and related keyboard skills.

MUSI 1115. Piano Class for Music Majors II. 1 Credit Hour.
Class piano instruction for music majors with an emphasis on the practical application of music theory involving harmonization, transposition, and related keyboard skills.

MUSI 1116. Sight Singing & Ear Training I. 1 Credit Hour.
Singing tonal music in treble and bass clefs, and aural study of elements of music, such as scales, intervals and chords, and dictation of basic rhythm, melody and diatonic harmony.

MUSI 1117. Sight Singing & Ear Training II. 1 Credit Hour.
Singing tonal music in various clefs, continued aural study of the elements of music, and dictation of intermediate rhythm, melody and diatonic harmony.

MUSI 1181. Piano Class I. 1 Credit Hour.
Class instruction in the fundamentals of keyboard technique for beginning piano students.

MUSI 1182. Piano Class II. 1 Credit Hour.
Advanced beginning class instruction in the fundamentals of keyboard technique.

MUSI 1301. Fundamentals of Music I. 3 Credit Hours.
Introduction to the basic elements of music theory for non-music majors: scales, intervals, keys, triads, elementary ear training, keyboard harmony, notation, meter, and rhythm. (Does not apply to a music major degree.).

MUSI 1303. Fundamentals of Music. 3 Credit Hours.
Introduction to the basic elements of music theory, including scales, intervals, keys, triads, elementary ear training, notation, meter, and rhythm. Course does not apply to a music major degree.

MUSI 1306. Music Appreciation. 3 Credit Hours.
Understanding music through the study of cultural periods, major composers, and musical elements. Illustrated with audio recordings and live performances. (Does not apply to a music major degree.).

MUSI 1307. Music Literature. 3 Credit Hours.
A survey of the styles and forms of music as it developed from the middle ages to the present. This course will familiarize the student with cultural context, terminology, genres, and notation.

MUSI 1310. American Music. 3 Credit Hours.
Survey of various styles of music in America. Topics may include jazz, ragtime, folk, rock, and contemporary art music.

MUSI 1311. Music Theory I. 3 Credit Hours.
The study of analysis and writing of tonal melody and diatonic harmony, including fundamental music concepts, scales, intervals, chords, 7th chords, and early four-part writing. Analysis of small compositional forms. Optional correlated study at the keyboard.

MUSI 1312. Music Theory II. 3 Credit Hours.
The study of analysis and writing of tonal melody and diatonic harmony, including all diatonic chords and seventh chords in root position and inversions, non-chord tones, and functional harmony. Introduction to more complex topics, such as modulation, may occur. Optional correlated study at the keyboard.

MUSI 2114. Piano Class III for Music Majors. 1 Credit Hour.
Continuation of Class Piano II, with emphasis on scales and arpeggios (hands together), harmonization, sight reading, score reading, ensemble, and simple accompanying.

MUSI 2115. Piano Class IV for Music Majors. 1 Credit Hour.
Continuation of Piano Class III with further study given to scales (including chromatic scale), arpeggios, broken chords, score reading, solo and ensemble performance, and accompanying.

MUSI 2116. Sight Singing & Ear Training III. 1 Credit Hour.
Singing more difficult tonal music in various clefs, aural study including dictation of more complex rhythm, melody, chromatic harmony, and extended tertian structures.

MUSI 2117. MUSI 2117 Sight Singing & Ear Training IV (1 SCH version). 1 Credit Hour.
Singing advanced tonal music and introduction of modal and post-tonal melodies. Aural study including dictation of advanced rhythm, melody, and harmony.

MUSI 2181. Piano Class III. 1 Credit Hour.
Intermediate class instruction of keyboard technique.

MUSI 2182. Piano Class IV. 1 Credit Hour.
Advanced class instruction of keyboard technique.

MUSI 2311. Music Theory III. 3 Credit Hours.
Advanced harmony voice leading, score analysis and writing of more advanced tonal harmony including chromaticism and extended-tertian structures. Optional correlated study at the keyboard.

MUSI 2312. Music Theory IV. 3 Credit Hours.
Continuation of advanced chromaticism and survey of analytical and compositional procedures in post-tonal music. Optional correlated study at the keyboard.

MUSI 3129. Intermediate & Advanced Band Repertoire. 1 Credit Hour.
This course focuses increasing knowledge and awareness of the importance of selecting appropriate concert band literature for the contest and concert stage. In addition there will be an emphasis on improving the skills needed to plan, conduct and rehearse instrumental ensembles of a variety of levels.

MUSI 3130. Intermediate & Advanced Orchestra Repertoire. 1 Credit Hour.
This course focuses increasing knowledge and awareness of the importance of selecting appropriate concert orchestra literature for the contest and concert stage. In addition there will be an emphasis on improving the skills needed to plan, conduct and rehearse instrumental ensembles of a variety of levels.

MUSI 3133. Woodwind Class. 1 Credit Hour.
This course is designed to facilitate the development of skills, techniques, understandings, and professional dispositions which are necessary for teaching others to play woodwind instruments.

MUSI 3134. Brass Class. 1 Credit Hour.
This course focuses on the basics of musical performance with special attention to rhythm, tone quality, range, musical phrasing, intonation and style, from different stylistic periods, in a variety of key signatures and meter signatures.

MUSI 3135. Vocal Class (Instrumental Majors). 1 Credit Hour.
This course serves an introduction to singing for instrumentalists who need a pedagogical knowledge for future work with singers or choirs. Instruction will include work on anatomy of the voice, breathing, posture, resonance, diction, repertoire and vocal health. In addition to accessing voices for choral and/or private lesson for singing students.
MUSI 3137. Percussion. 1 Credit Hour.  
This course is designed to facilitate the development of skills, techniques, understandings, and professional dispositions which are necessary for choral leadership. This course is designed to prepare prospective choral leaders, public school or secular group, in both musical and non-musical aspects of being a choral teacher.

MUSI 3138. String Class. 1 Credit Hour.  
This course is designed to facilitate the development of skills, techniques, understandings, and professional dispositions which are necessary for teaching others to play stringed instruments.

MUSI 3161. Diction for Singers. 1 Credit Hour.  
This class will study the proper pronunciations for lyrics of English, Italian, German, and French musical literature. The student is expected to effectively apply these guidelines in their own speech and singing.

MUSI 3162. Opera Workshop. 1 Credit Hour.  
This focuses on the organization and staging of standard operas and operettas. May be repeated. Fall (opera), spring (musical).

MUSI 3259. Choral Repertoire. 2 Credit Hours.  
This course focuses on the analysis of tonality, harmony and form in European music of the 18th and 19th centuries. Includes aural recognition of forms.

MUSI 3263. Form & Analysis. 2 Credit Hours.  
Analysis of tonality, harmony and form in European music of the 18th and 19th centuries. Includes aural recognition of forms. Prerequisite(s): MUSI 2115, MUSI 2117 and MUSI 2312.

MUSI 3264. Orchestration. 2 Credit Hours.  
This course covers the fundamentals of instrumentation and arranging music for instruments and vocalists in a variety of musical performance settings.

MUSI 3313. Music Appreciation. 3 Credit 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 3324. Popular Music in America. 3 Credit Hours.  
An introductory study of popular music in the U.S., emphasizing development and application of analytic skills oriented toward the popular arts. Concert attendance and listening requirements.

MUSI 3343. Computer Assisted Electronic Music. 3 Credit Hours.  
This course focuses on the use of microcomputers in generation and control of electronic music. Study of one or more commonly available microcomputer programs for MIDI application. Includes technology for music teachers.

MUSI 4095. Senior Recital. 0 Credit Hours.  
Senior Recital is a course in which the student prepares for and performs in their senior recital.

MUSI 4098. Senior Recital. 0 Credit Hours.  
Senior Recital is a course in which the student prepares for and performs in their senior recital.

MUSI 4105. Beginning Conducting. 1 Credit Hour.  
This class is an introduction to basic conducting skills with an emphasis on the art and study of conducting, baton technique, left hand technique, non-verbal communication, leadership, conducting terminology, transpositions and score reading.

MUSI 4207. Advanced Conducting. 2 Credit Hours.  
This class is focused on advanced conducting skills.

MUSI 4312. Vocal Pedagogy. 3 Credit Hours.  
This course focuses on the physical aspects of the vocal mechanism, anatomy, breathing, resonance, phonation, articulation and various techniques used in identifying vocal problems and pedagogical issues for a singer as a choral director and voice teacher.

MUSI 4326. Elementary Music Methods. 3 Credit Hours.  
This course is designed to facilitate the development of skills, techniques, understandings, and professional dispositions which are necessary for elementary music educators. This course is designed to prepare prospective elementary music educators, public school or secular group, in both musical and non-musical aspects of being a music educator.

MUSI 4327. Instrumental & Marching Methods. 3 Credit Hours.  
This course focuses on teaching and procedural methods required to produce a quality marching band and instrumental program.

MUSI 4328. Sec Orchestra & Guitar Methods. 3 Credit Hours.  
This course focuses on teaching and procedural methods required to produce a quality orchestra program.

MUSI 4388. Problems. 1-6 Credit Hours.  
A directed study of selected problems in music.

MUSI 4398. Senior Recital. 0 Credit Hours.  
Senior Recital is a course in which the student prepares for and performs in their senior recital.

Reading Courses

READ 3301. Introduction to Children's Literature. 3 Credit Hours.  
Study literature for children focusing on the use of classic and contemporary texts to promote interest, motivation, and critical reading skills for self-selected reading in the elementary student. Learn to use texts to emphasize literary genre, text structures, and literary devices as tools for making connections and meaning. Prerequisite(s): Required core ENGL classes for degree. Credit will not be granted for READ 3301 and ENGL 3350.

READ 3310. Foundations of Literacy. 3 Credit Hours.  
This course provides an overview of foundational concepts, principles, and best practices related to the science of teaching reading. Includes a survey of the cognitive, socio-cultural, linguistic, and motivational influences on literacy and language development. Presents the key scientifically-based reading research foundations needed to understand how reading develops from early childhood through adolescence. Prerequisite(s): Admission to teacher education block 1.

READ 3311. Literacy Development I. 3 Credit Hours.  
This course addresses the theory and practice of teaching early reading. Takes into consideration theories of learning, understandings of students and their needs, and the backgrounds and interests of individual students. Study characteristics of typical and atypical reading development in the emergent/early learner, explore materials, procedures, assessments and instructional methods. Prerequisite(s): Completion of teacher education block 1 with a minimum 2.75 GPA.

READ 3320. Fundamentals of Teaching Reading. 3 Credit Hours.  
(W) This course focuses on research-based competencies essential for effective literacy instruction. Surveys characteristics of normal reading development in the elementary through middle school learner; explores materials, procedures, assessment and instructional methods considered effective in teaching oral language, writing, strategy building for comprehension, vocabulary, and word identification.
READ 3330. Reading II: Assessment, Instruction and Reader Development. 3 Credit Hours. (WI) Study characteristics of the transitional and fluent literacy learner, methods of assessment and instruction for strategy building, comprehension, vocabulary, word identification, and TEKS/TAKS. Examine normal reading development, reading difficulties, strategies for assessing/addressing reading differences including diverse learner reading processes and development of literacy in English or ELL. Prerequisite(s): READ 3311 and Admission to the Teacher Education Program. Concurrent enrollment in EDUC 3330.

READ 3335. Content Area Reading. 3 Credit Hours. (WI) Examine factors that influence learning from content text and study specific instructional strategies which promote comprehension, vocabulary development, effective study strategies, and test-taking skills. Study ways to modify text for diverse learners and the principles of research-based reading instruction. Must be admitted to the Teacher Ed Program.

READ 4304. Reading and Writing Across the Curriculum. 3 Credit Hours. (WI) Study theory and instructional strategies for teaching the writing process in elementary and middle schools. Learn stages of the writing process, issues at the different grade levels, teaching with mini-lessons, early literacy, spelling, handwriting, developing listening skills, process writing, and the use of children's literature to teach writing. Prerequisite(s): READ 3330 and EDUC 3330, and concurrent enrollment in READ 4305 and EDUC 4304 or EDUC 4330.

READ 4305. Implement Classroom Reading Instruction. 3 Credit Hours. Study state and national reading initiatives, approaches to teaching reading, procedures for organizing the elementary and middle school classrooms for reading instruction, research on effective reading-writing instruction, and roles of school personnel and parents in the school reading program. Prerequisite(s): READ 3330 and EDUC 3330, and concurrent enrollment in READ 4304 and EDUC 4304 or EDUC 4330.

READ 4312. Literacy Development II. 3 Credit Hours. (WI) A field-based course surveying characteristics of the transitional/independent literacy learner, methods of instruction for writing, strategy building, comprehension, vocabulary, word identification, utilizing the Texas Essential Knowledge and Skills. Examines typical/atypical reading development and strategies for assessing/addressing reading differences in individual learners. Explores structures and features of expository text including examination of supports and challenges within the text. Prerequisite(s): Admission to teacher education program.

READ 4313. Analysis and Response. 3 Credit Hours. (WI) This course examines the foundational concepts, principles and best practices relating to assessment, utilizing a variety of evaluation and assessment tools. Students will analyze assessment data related to literacy development in order to plan appropriate instruction for typical/atypical learners. In-depth analyses are prepared to communicate student literacy outcomes to various audiences. Prerequisite(s): Admission to teacher education program.

READ 5370. Literacy Development. 3 Credit Hours. Analyze models of the reading and writing processes. Emphasis on characteristics of emergent, early, transitional and fluent literacy instructional strategies in reading and writing, phonics instruction and strategies for teaching English language learners, and the essential knowledge and skills in the language arts curriculum. Prerequisite(s): Admission to the teacher certification program.

READ 5371. Advanced Strategy for Literacy Development. 3 Credit Hours. Study research in literacy development from early childhood through adulthood. Learn to develop research-based literacy programs from early childhood through adulthood, apply informal diagnostic and remedial procedures for English language learners, elementary, secondary and adult readers, and survey print and non-print materials, including textbooks, trade books and computer software. Prerequisite(s): admission to the teacher certification program.

READ 5372. Language Arts. 3 Credit Hours. Examine research and strategies for implementing the reading/writing process in classrooms. Explore integrated curriculum, the use of children's literature, classroom management and organization, evaluation, working with diverse learners, and developing support networks. Prerequisite(s): READ 5373 or 9 hours of undergraduate READ courses or permission of department chair.

READ 5373. Foundations of Reading. 3 Credit Hours. Examine theoretical models of the reading process, historical perspectives on reading instruction, and language learning. Develop an understanding of the construction of reading theory and its relationship to instructional practices. Prerequisite(s): Elementary, secondary, or all-level certification or permission of department chair.

READ 5374. Reading Resources and Materials. 3 Credit Hours. Study print and non-print materials including content-area textbooks, trade books, and computer software. Evaluate materials and application of reading principles to instruction in content areas. Prerequisite(s): READ 5373 or 9 hours of undergraduate READ courses or permission of department chair.

READ 5375. Reading Research and Assessment. 3 Credit Hours. Examine methods and techniques employed in reading research and assessment. Review research and the development, implementation, and dissemination of classroom research. Explore the application of appropriate diagnostic and correctional procedures for elementary, secondary, and adult learners having difficulty reading. Prerequisite(s): READ 5373 or 9 hours of undergraduate READ courses or permission of department chair.

READ 5376. Organization and Administration of Reading Programs. 3 Credit Hours. Study state laws, trends and issues related to the administration of reading programs. Examine instructional issues and reading programs for pre-K through adult learners, censorship issues, textbook/test adoption procedures, roles and responsibilities in the reading program, staff development, and change strategies. Prerequisite(s): READ 5373 or 9 hours of undergraduate READ courses or permission of department chair.

READ 5377. Certification. 3 Credit Hours. Study research in literacy development from early childhood through adulthood. Review research-based literacy programs from early childhood through adulthood, apply informal diagnostic and remedial procedures for English language learners, elementary, secondary and adult readers, and survey print and non-print materials, including textbooks, trade books and computer software. Prerequisite(s): Admission to the teacher certification program.

READ 5378. Reading Problems. 1-3 Credit Hours. Study of selected problems in reading. Engage in independent research, reading and discussions under the personal direction of the instructor, topics may vary according to student need. Prerequisite(s): Permission of department chair.

READ 5391. Reading Practicum. 3 Credit Hours. Apply knowledge gained in previous Reading Specialist certification courses. Practicum candidates will be directly involved in providing 180 clock hours of reading services to students in a local public or private school setting, and will document expertise and experience in all four Standards. Prerequisite(s): READ 5373, READ 5374, READ 5375, READ 5376 and ENGL 5321; two years of creditable classroom teaching experience. Field experience fee - $75.
B.S. Aviation Science - Aviation Management

OVERVIEW

The Aviation Science-Aviation Management degree provides a comprehensive background in aviation studies, management and business to prepare students for airport management, airport consulting, aviation insurance, airline operations and more. Our program provides the management training in aviation in conjunction with the business operations training to be successful in the field of aviation management.

The program offers junior- and senior-level coursework, and also offers internships with several aviation organizations that cover a broad range of employers.

Aviation Management students build leadership and professional experience through real-world experience, exciting class projects and internships.

The Aviation Science-Aviation Management degree with Maintenance Concentration provides a comprehensive background in aviation studies, management and business needed to prepare students for management positions with airline maintenance operations, aerospace industry companies, corporate maintenance management and more. Our program provides the management training in aviation in conjunction with the business operations training to be successful in the field of aviation management.

The program offers junior and senior-level coursework. Aviation Management-Maintenance Concentration students typically enroll with having obtained their FAA Airframe and Powerplant ratings.

Program Level Student Learning Outcomes

The student will be able to:

1. Explain the laws, regulations, and legal issues affecting the aviation industry.
2. Identify the issues affecting aviation safety and safety management.
3. Communicate proficiency in writing and oral presentations.
4. Evaluate the implications of an ethical dilemma from a variety of ethical frameworks.
5. Demonstrate how technology can support business decision-making.
6. Identify how the differences in business environment between countries may impact business decisions.

Technical Specialization (42 hours required):

The following courses are recommended for articulation upon receipt of licensure and compliance with these specific conditions:

1. The requesting student has earned:
   • A Commercial Pilot License and Instrument Rating, issued by the Federal Aviation Administration (FAA) and taught under Federal Aviation Regulation (FAR) Part 141 rules from an institution of higher learning (IHL).
   • The IHL has an authorized FAA Air Agency Certificate for both air and ground courses under Part 141 provisions.
   • The requesting student’s Commercial and Instrument certificates must be attached to this form.
   • With receipt of the qualified certificates and conditions listed above, TAMUCT will grant up to 42 credit hours of the lower-level aviation requirements upon enrollment into the Professional Pilot or Aviation Management degree programs.
   • If attending the Aviation Management – Maintenance Concentration, attach both the FAA issued Airframe and Powerplant license and TAMUCT will grant up to 33 credit hours of the lower-level requirements, if taken at an approved FAA Part 147 school.

2. If a student’s Instrument and Commercial pilot’s Licenses were obtained outside a partnering IHL and under the provisions of FAR Part 61 standards, only the following will be granted upon proof of FAA licensure enrollment at TAMUCT:

   Course and Number Title Certificate Date Semester Hours Grade
   AIRP 2250 Instrument Rating 3 P
   AIRP 2239 Commercial Flight 3 P
   AIRP 1417 Private Flight 3 P

3. All collegiate Aviation Ground courses taught under FAR Part 141 approval from any IHL will be accepted towards the required 42 credit hours for lower-level aviation requirements for TAMUCT Professional Pilot degree.

4. If a student who has licensure through Instrument and Commercial Pilot ratings under FAR Part 61/141 conditions wishes to receive non-standard credit for all attendant collegiate ground courses based upon the FAA licensure alone, he can take an administered FAA written equivalent exam, administered under an online testing program for Private Pilot, Instrument and Commercial Pilot. Passing is 70%. All three tests must have a passing grade before the core 42 credit hour Aviation Ground courses will be applied to the Technical Specialization.

5. Aviation Management – Maintenance Concentration students must show recency of experience with licensure, not to exceed five years absence from the field.

Bachelor of Science Aviation Science - Aviation Management Program Requirements

Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan. This program may require summer coursework.

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| Spring          |                                                                      |              |
| ACSI, AVIM, AERM, AIRP Elective ¹ | 3                         |              |
| ACSI, AVIM, AERM, AIRP Elective ¹ | 3                         |              |
**Texas A&M University Central Texas 2020-2021**

**ACSI, AVIM, AERM, AIRP Elective**  
1 3

**ACSI, AVIM, AERM, AIRP Elective**  
1 3

**ACSI, AVIM, AERM, AIRP Elective**  
1 3

**Second Year**

**Fall**

- **ACSI, AVIM, AERM, AIRP Elective**  
  1 3

- **CORE REQ Communications (010)**  
  3

- **CORE REQ Mathematics (020)**  
  3

- **CORE REQ Life and Physical Sciences (030)**  
  3

- **CORE REQ Creative Arts (050)**  
  3

**Spring**

- **CORE REQ Communications (010)**  
  3

- **CORE REQ Life and Physical Sciences (030)**  
  3

- **CORE REQ Language, Philosophy, and Culture (040)**  
  3

- **CORE REQ Social and Behavioral Sciences (080)**  
  3

**ACCT 2301**  
Principles of Financial Accounting (CORE REQ 090)  
3

**Third Year**

**Fall**

- **CORE REQ American History (060)**  
  3

- **CORE REQ Government/Political Science (070)**  
  3

- **ACCT 2302**  
Principles of Managerial Accounting (CORE REQ 090)  
3

- **ECON 2301**  
Principles of Macroeconomics  
3

- **AVSC 4333**  
General Aviation and Corporate Business Aviation  
3

**Spring**

- **CORE REQ American History (060)**  
  3

- **CORE REQ Government/Political Science (070)**  
  3

- **ECON 2301**  
Principles of Microeconomics  
3

- **COSC 1301**  
Introduction to Computing  
3

- **or CIS 3300**  
Computer Technology and Impact  
3

- **BUSI 3311**  
Business Statistics  
3

**Fourth Year**

**Fall**

- **BUSI 3301**  
Business Communications and Research  
3

- **MGMT 3301**  
Principles of Management  
3

- **MKTG 3301**  
Marketing  
3

- **AVSC 4396**  
Capstone – Aviation Management (Emergency Preparedness)  
3

- **AVSC Elective - Faculty Approved**  
3

**Spring**

- **MGMT 3302**  
Personnel and Human Resource Management  
3

- **MGMT 4306**  
Employer and Labor Relations  
3

- **AVSC Elective - Faculty Approved**  
3

**AVSC Elective - Faculty Approved**  
3

- **Total Credit Hours**  
120

1 Refer to Technical Specialization Credit page for more information.

2 These courses may be taken during the summer.

**Bachelor of Science Aviation Science - Aviation Management Maintenance Program Requirements**

Refer to the General Education Core Requirements page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan. This program may require summer coursework.

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| **Spring** | | |
| ACSI, AVIM, AERM, AIRP Elective | 3 |
| ACSI, AVIM, AERM, AIRP Elective | 3 |
| ACSI, AVIM, AERM, AIRP Elective | 3 |
| ACSI, AVIM, AERM, AIRP Elective | 3 |

| **Second Year** | | |
| **Fall** | | |
| ACSI, AVIM, AERM, AIRP Elective | 3 |
| CORE REQ Communications (010) | 3 |
| CORE REQ Mathematics (020) | 3 |
| CORE REQ Life and Physical Sciences (030) | 3 |
| CORE REQ Creative Arts (050) | 3 |
| **Spring** | | |
| CORE REQ Communications (010) | 3 |
| CORE REQ Life and Physical Sciences (030) | 3 |
| CORE REQ Language, Philosophy, and Culture (040) | 3 |
| CORE REQ Social and Behavioral Sciences (080) | 3 |
| ACCT 2301 | Principles of Financial Accounting (CORE REQ 090) | 3 |
| **Third Year** | | |
| **Fall** | | |
| ACSI, AVIM, AERM, AIRP Elective | 3 |
| CORE REQ American History (060) | 3 |
| CORE REQ Government/Political Science (070) | 3 |
| ACCT 2302 | Principles of Managerial Accounting (CORE REQ 090) | 3 |
| ECON 2301 | Principles of Microeconomics | 3 |
| AVSC 4333 | General Aviation and Corporate Business Aviation | 3 |
| **Spring** | | |
| ACSI, AVIM, AERM, AIRP Elective | 3 |
| ACSI, AVIM, AERM, AIRP Elective | 3 |
| ACSI, AVIM, AERM, AIRP Elective | 3 |
| ACSI, AVIM, AERM, AIRP Elective | 3 |

<p>| <strong>Fourth Year</strong> | | |
| <strong>Fall</strong> | | |
| BUSI 3301 | Business Communications and Research | 3 |
| MGMT 3301 | Principles of Management | 3 |
| MKTG 3301 | Marketing | 3 |
| AVSC 4396 | Capstone – Aviation Management (Emergency Preparedness) | 3 |
| AVSC Elective - Faculty Approved | 3 |
| <strong>Spring</strong> | | |
| MGMT 3302 | Personnel and Human Resource Management | 3 |
| MGMT 4306 | Employer and Labor Relations | 3 |
| AVSC Elective - Faculty Approved | 3 |
| AVSC Elective - Faculty Approved | 3 |</p>
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<td>Capstone – Aviation Management (Emergency Preparedness)</td>
<td>3</td>
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<tr>
<td>AVSC 3350</td>
<td>Technical and Professional Communications for Aviation Maintenance Managers</td>
<td>3</td>
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<tr>
<td></td>
<td>(Technical &amp; Professional Communications)</td>
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<tr>
<td>AVSC 3310</td>
<td>Managing Maintenance Organizations and People (Managing Organizations and People)</td>
<td>3</td>
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<td><strong>Spring</strong></td>
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<tr>
<td>MGMT 3302</td>
<td>Personnel and Human Resource Management</td>
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<tr>
<td>MKTG 3301</td>
<td>Marketing</td>
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<td>MGMT 4306</td>
<td>Employer and Labor Relations</td>
<td>3</td>
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<tr>
<td>AVSC 4360</td>
<td>Aviation Maintenance Management – Global Perspective (Aviation Maintenance Management-Global Perspective)</td>
<td>3</td>
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<tr>
<td>AVSC 3300</td>
<td>Maintenance Department Personal and Team Leadership (Personal and Team Leadership)</td>
<td>3</td>
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</table>

**Total Credit Hours**: 120

1. Must hold an FAA issued Airframe and Powerplant rating to be eligible. Refer to the Technical Specialization Credit page for more information.
2. These courses may be taken during the summer.

**Aviation Science Courses**

**AVSC 3300. Maintenance Department Personal and Team Leadership. 3 Credit Hours.**

This course examines the personal dynamics of self-motivation, personal organization, and organizing effective team structures and dealing with team interpersonal dynamics in an aviation maintenance facility. Prerequisite(s): Admission Requirements.

**AVSC 3301. Air Carrier Operations. 3 Credit Hours.**

Explore Federal Aviation Regulations relating to various specialized facets of the aviation industry, including airline operations, aircraft certification, air-worthiness standards and airport operations. Prerequisite(s): Commercial Pilot Certificate or permission of the department Chair.

**AVSC 3302. Aviation Techniques of Instruction. 3 Credit Hours.**

Examine the fundamentals of teaching and learning in an aviation oriented environment. Develop the techniques of instruction and the analysis of flight maneuvers, and demonstrate the theory of flight. Correlate Federal Aviation Regulations relating to the application of their flight instructor rating. Prerequisite(s): Commercial Pilot Certificate or permission of instructor.

**AVSC 3303. Air Traffic Control. 3 Credit Hours.**

Study FAA’s procedures for separating aircraft in the National Air Space, including the airport environment and enroute flight. Prerequisite(s): Acceptance into Professional Pilot program and Commercial Pilot Certificate or instructor approval.

**AVSC 3304. Airport Management. 3 Credit Hours.**

Examine requirements for developing a public airport to include local and state governmental agencies. Explore Federal aid and regulations, and the management required for the overall airport operations. Analyze tenant operators, leases, property development for non-aviation use, user taxation for airport operations, planning and policies, organization and administration, maintenance, safety and airport fuels and regulations. Prerequisite(s): Acceptance into Aviation Management or Professional Pilot program.

**AVSC 3307. Aviation History. 3 Credit Hours.**

(WI) Study the people and events from ancient times through the present that have influenced modern aviation internationally. Examine historical evidence and recorded documents to understand the role aviation has played in world events. Prerequisite(s): Acceptance into Aviation Management or Professional Pilot program.

**AVSC 3308. Aviation History II. 3 Credit Hours.**

Study the people and events from 1939 to the present that have influenced modern aviation internationally. Examine historical evidence and recorded documents to understand the role aviation has played in world events. Prerequisite(s): Junior classification.

**AVSC 3310. Managing Maintenance Organizations and People. 3 Credit Hours.**

Overview of the role of aviation maintenance management, and an introduction to leadership theory and practice. Includes defining of mission and goals, organizing work, and managing human performance. Prerequisite(s): Admission to program.

**AVSC 3321. Airline Management. 3 Credit Hours.**

Discover the behind-the-scenes activities involved in the business of airline operations. Prerequisite(s): Acceptance into Aviation Management program.
AVSC 3333. Airports and Environmental Impact. 3 Credit Hours.
Review the FAA advisory circular topics such as sustainability, solar alternative energy, environmental hazards and prevention of mishaps with an emphasis on the importance of environmental concerns in modern airports and the impact on the surrounding communities and ecosystems. Prerequisite(s): Acceptance into Aviation Management program.

AVSC 3339. Basic Ground Instructor. 3 Credit Hours.
The Basic Ground Instructor (BGI) course prepares students to take the ground instruction exam required for a sport pilot, recreational pilot, or private pilot certificate. Topics covered include aviation weather, navigation, aircraft systems and related materials to the BGI certificate. The BGI course also includes Fundamentals of Instruction (FOI) knowledge test preparation, both of which are required for licensure by the FAA. Prerequisite(s): Must be at least 18 years old.

AVSC 3350. Technical and Professional Communications for Aviation Maintenance Managers. 3 Credit Hours.
(WI) This course covers the technical communication principles and practices used in the aviation maintenance workplace. Students learn the technical writing of reports and correspondence using electronic information retrieval and presentation. Prerequisite(s): Admission to program.

AVSC 4301. Aviation Law. 3 Credit Hours.
Explore the distinctive body of statutes, treaties, regulation and case law related to general aviation. Examine specialized rules and laws that have been developed due to the distinctive nature of the airplane as a mode of transportation. Prerequisite(s): Acceptance into Aviation Management or Professional Pilot program.

AVSC 4302. Advanced Aircraft Systems. 3 Credit Hours.
Study aerodynamics, federal aviation regulations, weight, balance, and turbine systems, and their relationship with aircraft systems. Apply and operate advanced aircraft systems used by commercial pilots in air carrier operations. Prerequisite(s): Acceptance into Aviation Management or Professional Pilot program.

AVSC 4308. Aviation Safety. 3 Credit Hours.
Analyze effective procedures and techniques in the development and supervision of an Aviation Safety program. Study aircraft accident prevention, and the use of statics in aviation safety. Special emphasis on safety measures and education media materials. Prerequisite(s): Acceptance into Aviation Management or Professional Pilot program.

AVSC 4309. Aviation Security. 3 Credit Hours.
(WI) Consider the use of situational awareness, teamwork, and effective communication to recognize and thwart security threats in the aviation environment. Analyze the use of effective procedures and policies to recognize and prevent the intentional act of humans to cause harm or disruption through aviation.

AVSC 4321. Certification of Airports. 3 Credit Hours.
Discuss the requirements and procedures in seeking government approvals for airport certification as it applies to general aviation and air carrier operations. Students are advised to take a writing intensive course prior to enrolling. Prerequisite(s): AVSC 3321 and acceptance into Aviation Management program.

AVSC 4333. General Aviation and Corporate Business Aviation. 3 Credit Hours.
Study the business skills and knowledge needed to operate a small aviation business. Gain an understanding of the operational managerial aspects of general aviation and corporate business aviation.

AVSC 4344. Historical Application of Aircraft Design. 3 Credit Hours.
Study the evolution, concepts, and design aspects used in aircraft development. Construct and evaluate scale models of historical aircraft. Special emphasis on aerodynamic efficiency and aircraft manufacturing.

AVSC 4350. Aviation Seminar. 3 Credit Hours.
Explore selected topics in aviation. May be repeated for credit when topics vary. Prerequisite(s): Permission of department chair.

AVSC 4356. Aviation Maintenance Management – Global Perspective. 3 Credit Hours.
Examines the global aviation management field with a trend analysis of the divergent methodologies of maintenance management between airlines, cultures, international law, parts acquisition and labor. Prerequisite(s): Admission to program.

AVSC 4384. Aviation Internship. 3 Credit Hours.
Experience supervised Aviation Management in a fixed base operations, regional/major airline operations or municipal airport management operations setting. Analyze management problems, develop resolution techniques, and understand customer service as an important phase of the management process. Prerequisite(s): 12 hours of upper-level aviation courses, AVSC 3304 and permission of instructor. Field assignment fee $75.

AVSC 4388. Aviation Problems. 1-3 Credit Hours.
Explore selected topics in aviation. May be repeated with permission of the department chair. Prerequisite(s): Permission of department chair.

AVSC 4395. Capstone – Professional Pilot (Crew Resource Management). 3 Credit Hours.
Practice the knowledge, skills, attitudes, and abilities attained in the program in demonstrating emergency preparedness in simulated emergency scenarios. Prerequisite(s): Senior standing and acceptance in Professional Pilot program.

AVSC 4396. Capstone – Aviation Management (Emergency Preparedness). 3 Credit Hours.
Practice the knowledge, skills, attitudes, and abilities attained in the program in demonstrating emergency preparedness in simulated emergency scenarios. Prerequisite(s): Senior standing and acceptance in Aviation Management program.

Management Courses

MGMT 3301. Principles of Management. 3 Credit Hours.
Study the basic managerial functions of planning, organizing, staffing, directing, and controlling resources to accomplish organizational goals. Special emphasis on the systems concept of management and role of the manager in each level of the organization.

MGMT 3302. Personnel and Human Resource Management. 3 Credit Hours.
Study 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 3303. Supervisory Management. 3 Credit Hours.
Investigate the role, function, and responsibilities of the supervisor in modern organizations through study of sociological and psychological theories in human relations. Emphasis is on development of supervisory skills in communications, motivation, discipline, morale, and grievances as they arise in superior-subordinate relationships. Prerequisite(s): MGMT 3301 or permission of department chair.
MGMT 3310. Entrepreneurship I. 3 Credit Hours.
Learn how to identify and evaluate opportunities that may become the foundation for a new business venture. Learn to develop a new business venture using the business model canvas. Assess the value of a concept and explore opportunity recognition, innovation and creativity, the legal structure of business, and types of entrepreneurial ventures. Prior knowledge in basic business fundamentals and good writing skills are preferred, but not required.

MGMT 3350. Organizational Behavior. 3 Credit Hours.
(WI) Analyze behavior of people at work in all types of organizations. Learn 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. Prerequisite(s): MGMT 3301 and BUSI 3301.

MGMT 4302. Productive Relationships. 3 Credit Hours.
Examine the practicals and theories related to dealing with human behavior. Emphasis on identifying and classifying behavior in order to better understand behavior and to develop strategies for effectively managing interpersonal relationships. A materials fee of $45 is required for needed course materials. Prerequisite(s): MGMT 3301 and BUSI 3301.

MGMT 4303. Managing Compensation. 3 Credit Hours.
Understand the various factors that affect the two important compensation decisions: How to (pay method) and how much (pay level) an organization should pay its employees. Emphasis is placed on the understanding of basic concepts, theories, current trends, and legal and social requirements related to the issue of compensation. Prerequisites: BUSI 3301 and MGMT 3302.

MGMT 4304. Recruitment and Selection of Human Resources. 3 Credit Hours.
Study recruitment and selection of human resources for organizations. Examine optimal utilization of human resources within organizations, and the use of tests and other techniques in human resource management. Prerequisite(s): MGMT 3302 and BUSI 3301.

MGMT 4305. Human Resource Development. 3 Credit Hours.
Learn practical and theoretical approaches to training and development of employees in an organization. Study role and scope of training and development functions, philosophies, strategies, needs analysis, development of program content, and evaluation Prerequisite(s): MGMT 3302 and BUSI 3301.

MGMT 4306. Employer and Labor Relations. 3 Credit Hours.
Study collective bargaining, labor market fundamentals, unionism, and related issues of labor economics. Prerequisite(s): MGMT 3301.

MGMT 4310. Entrepreneurship II. 3 Credit Hours.
Develop skills required to manage and grow a new venture past the start-up. Apply general business concepts to the challenges facing entrepreneurs. Draw on a broad range of business disciplines including management, marketing, finance, and accounting to develop a business plan. As such, background knowledge in these areas, as well as good writing skills, is strongly preferred, but not required. Prerequisite(s): MGMT 3301 or permission of department chair.

MGMT 4321. Production and Operations Management. 3 Credit Hours.
Study industrial organization, scientific management, planning and control, building locations and layouts, wage rates, corporation relationships, and research. Prerequisite(s): MGMT 3301 and BUSI 3311.

MGMT 4322. Management Science. 3 Credit Hours.
Learn quantitative techniques of decision-making with an emphasis on managerial needs. Study discipline of continuous improvement in managerial decision-making. Analyze problem definition, data gathering and analysis, process improvement, improvement control, and be able to make recommendations to improve business results. Prerequisite(s): MGMT 3301 and BUSI 3311.

MGMT 4325. Leadership Theory and Practice. 3 Credit Hours.
Study leadership theories and issues with practical application of newer leadership models in contemporary organizations. Explore facets of both leadership and followership, along with the impact of the particular organizational setting and situation. Explore situation analysis through active reflection, analysis of case studies, simulations, and popular business press treatment of leadership situations. Prerequisite(s): BUSI 3301 and MGMT 3301.

MGMT 4340. Management Seminar. 3 Credit Hours.
Study current issues in management. Analyze readings from current management publications and other related periodicals. May be repeated for credit when topics vary. Prerequisite(s): 15 hours of MGMT or permission of department chair.

MGMT 4354. International Management. 3 Credit Hours.
Study the international dimensions of the marketplace and environment related to management. Examine the role of culture within international strategic management, organizational behavior and human resource management. Prerequisite(s): MGMT 3301, BUSI 3301 and BUSI 3344.

MGMT 4356. Global Management Practices. 3 Credit Hours.
Study basic international business concepts, cultural literacy, and discipline specific content applied to practical experiences and activities in a visited foreign country. 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. Prerequisite(s): Junior or senior standing. BUSI 4354, MGMT 4356, or MKTG 4356 may not be taken concurrently. Field assignment fee of $75.

MGMT 4360. Emergency Management. 3 Credit Hours.
Learn theories, principles and approaches to emergency management. Study the Philosophy of Comprehensive Emergency Management (CEM) with its four phases of preparedness, mitigation, response, and recovery. Analyze past disasters presented along with their attendant policy formations leading to the FEMA all hazards approach.

MGMT 4370. Introduction to Project Management. 3 Credit Hours.
This course provides a comprehensive overview of project management. The culture, principles, and basic techniques of project management are addressed using the project life-cycle as the primary organizational guideline. The project management functions of planning, organizing, motivating and controlling with an emphasis on the application to business and technology are explained. Basic tools of project management such as work breakdown structure, scheduling, earned value analysis, and risk management are explained and demonstrated. Prerequisites: BUSI 3301, BUSI 3311, MGMT 3301; Materials Fee: $35 for a simulation experience.

MGMT 4384. Management Internship. 3 Credit Hours.
Participate in a management related position with a public or private business organization that is preapproved and supervised. May be repeated for a total of 6 credit hours. Prerequisite(s): MGMT 3301 and permission of department chair. Field experiences fee: $75.
MGMT 4388. Management Problems. 1-3 Credit Hours.
Study selected problems in management. Engage in independent research, reading and discussions under the personal direction of the instructor. Topics may vary according to student need. May be repeated with permission of department chair. Prerequisite(s): Senior standing and permission of department chair.

MGMT 5090. Management Comprehensive Examination. 0 Credit Hours.
Study and take the management examination for Non-thesis students. Register for the comprehensive examination during final semester of graduate coursework, or upon permission of advisor. All comprehensive examinations will be written, but an oral component may also be required. A maximum of three attempts will be allowed. Thesis students do not take this examination.

MGMT 5301. Organizational Behavior. 3 Credit Hours.
Learn behavioral theory in organizational context. Study individual and group dynamics in the business environment. Specific emphasis given to leadership, motivation, communication, employee supervision, and morale. Prerequisite(s): Management leveling.

MGMT 5302. Sustainable Business: A One Planet Approach. 3 Credit Hours.
The leaders of today's organizations must navigate the challenges surrounding sustainability. Sustainability relates to the creation of long-term value for the triple bottom line of People, Planet and Profit through the adroit management of a firm's social, environmental, and economic impact. This course will provide students with the understanding and tools necessary to integrate sustainability into the business disciplines (marketing, finance, operations, etc.), emphasize how sustainability challenges can be turned into strategic competitive advantage, explore emerging market opportunities for sustainable products and services, and underscore the role of leadership in innovating, organizing, and managing the changes necessary to adopt a "one-planet" approach to survive and thrive in this rapidly changing environment. Prerequisite(s): Management Leveling.

MGMT 5305. Analytical Methods of Management Decisions. 3 Credit Hours.
Study analytical techniques which may be used to facilitate decisions analysis. Learn concepts of utility, break even analysis, network models, linear programming, game theory and computer simulation. Use course activity to survey analytical techniques which may be used to facilitate analysis of alternative decisions and practice in applying the techniques through problem solving. Prerequisite(s): BUSI 3311 or MATH 3300 and graduate standing.

MGMT 5306. Influence Organizational Productivity By Interpersonal Relationships. 3 Credit Hours.
Learn the practical and theories related to interpersonal behavior and its influence on organizational productivity. Learn to identify and classify behavior in order to better understand behavior and to develop strategies for creating productive relationships with others. Particular emphasis is directed toward the impact of interpersonal behavior in business organizations and the potential effect on productivity. A materials fee of $45 is required for needed course materials.

MGMT 5307. Responsibilities and Ethics of Leadership. 3 Credit Hours.
Analyze an organization's social and environmental responsibilities to its employees, customers, and other key stakeholder groups. Emphasis is given to the case study method for evaluating the performance of various organizations. Develop a theoretical framework for understanding ethics, principles and values of leadership as they affect the organization, the organizational environment, and society. Prerequisite(s): Management Leveling.

MGMT 5308. Designing Organizations for Sustainable Effectiveness. 3 Credit Hours.
Examines theories, processes and "fit" models of organization design and alignment of structure, technology, information systems, reward systems, people and culture, and management processes with organizational goals. Emphasis is on maximizing the triple bottom line for sustainable effectiveness and how organizations can be led and managed so they are economically, socially, and environmentally sustainable. Prerequisite(s): Management leveling.

MGMT 5309. Global Leadership for Sustainability. 3 Credit Hours.
This course is the integrating capstone course for the MS One Planet Leadership program. Examines both mainstream and emerging theories and approaches to leadership, including models of leadership for sustainability and developing the global mindset necessary for flourishing enterprises to maximize the triple bottom line. Applies leadership principles and models to varied organizational situations with a primary focus on developing leaders who can effectively deal with the economic, social, and environmental challenges global leaders face in today's volatile and chaotic business climate. A culminating capstone sustainability case study project is a required part of the course. Students must make a B on this project to pass the course and a B in the course to graduate. Prerequisite(s): Students must have completed or be currently enrolled in the core courses for the program, MGMT 5301, MGMT 5308, & MGMT 5368, or instructor approval.

MGMT 5310. Leadership Formation and Development. 3 Credit Hours.
This course examines both mainstream and emerging theories and approaches to leadership development and formation, with an emphasis on case study and experiential methods of examining the application of leadership principles and models. It provides each student the opportunity to focus on developing their personal and organizational abilities and skills to become triple bottom line leaders who can better resolve the economic, social and environmental issues of the global, Internet age. Prerequisite(s): Management leveling.

MGMT 5311. Sustainable Operations & Services. 3 Credit Hours.
Focuses on providing students with a broad understanding and knowledge of operations and service management concepts. Emphasis will be placed on incorporating various aspects of sustainability, while designing, managing and controlling business operations and services. In addition, students will be exposed to several analytical tools, models and methodologies that are necessary to design, develop and evaluate various sustainable business operations. Prerequisites: Management and Statistics Leveling.

MGMT 5315. International Management for Sustainability. 3 Credit Hours.
This course will focus on international business management through a sustainability lens. Seminal and current research along with relevant real-world examples will be used to expose students to theories and frameworks pertinent to international business functions and cross-cultural management. The course will sensitize students to global business environment opportunities and stimulate generation of team-based international business solutions contributing to sustainable development and consistent with the triple bottom line approach. Prerequisite(s): Management Leveling.

MGMT 5320. Negotiations. 3 Credit Hours.
Learn distributive negotiation, integrative negotiation, biases and pitfalls in negotiation, building trust, developing a negotiation style, power, persuasion, ethics, creativity and problem solving. Theoretical lecture/discussion and practical application/skill development, including in-class role plays, are used in this course. A materials fee of $40 is required for needed course materials.
MGMT 5330. Cross Sector Partnerships for Sustainability. 3 Credit Hours.

Cross-sector partnerships have proven to be one of the most effective approaches to complex environmental challenges. Through case studies of environmental partnerships, literature on collaboration strategies, reflective journals and field research, students will develop the skills necessary to lead future collaborative sustainability initiatives. Prerequisite(s): Management leveling.

MGMT 5340. Management Seminar. 3 Credit Hours.

Explore selected management topics of current importance to business management. May be repeated once for credit when topics vary.

MGMT 5345. Entrepreneurship. 3 Credit Hours.

The course is designed to cover the fundamentals of entrepreneurship. Students will be provided with tools and methods for successfully developing and launching a new venture. Students will have an opportunity to develop a business plan, and will be exposed to concepts such as creativity, risk-taking, and sustainable entrepreneurship.

MGMT 5350. Project Management. 3 Credit Hours.

Study a comprehensive overview of project management. Analyze culture, principles, and basic techniques of project management using the project life cycle as the primary organizational guideline. Learn project management functions and use basic tools of project management such as work breakdown structure, scheduling, contracting, earned value analysis, and risk management. A materials fee of $35 is required to support a learning simulation.

MGMT 5356. Global Management Practices. 3 Credit Hours.

Study basic international business concepts, cultural literacy, and discipline specific content applied to practical experiences and activities in a visited foreign country. 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. Prerequisite(s): Admission into a COBA graduate program and permission of instructor. Field experiences fee $75.

MGMT 5368. Development & Change for Learning Organizations. 3 Credit Hours.

Students apply strategies for developing organizational learning using behavioral science. Viewing organizations as complex ecological systems, students will master systems thinking related to organization development so that change efforts improve both the organization and the wider systems within which it operates. Prerequisite(s): MGMT 5301.

MGMT 5384. Management Internship. 3 Credit Hours.

Participate in a management related position with a public or private business organization that is preapproved and supervised. May be repeated for a total of 6 hours credit. Prerequisite(s): Permission of department chair. Field experiences fee $75.

MGMT 5388. Management Problems. 1-6 Credit Hours.

Study problems, topics, and perform research in management within the student's area of interest. Engage in independent research, reading and discussions under the personal direction of the instructor; topics may vary according to student need. This course offers students the opportunity to study. Prerequisite(s): Permission of department chair.

Marketing Courses

MKTG 3301. Marketing. 3 Credit Hours.

Examine principles and concepts of marketing goods, services, and intangibles by profit and non-profit organizations in a free enterprise and global economy.

MKTG 3312. Public Relations. 3 Credit Hours.

Study the techniques used in planning public relations programs for businesses, schools, churches, and civic associations. Learn press relations, crisis management, advertising, speech writing, and campaign activities. Prerequisite(s): MKTG 3301 and BUSI 3301.

MKTG 3315. Personal Selling. 3 Credit Hours.

Study the role and techniques of personal selling as a component of the marketing mix. Prerequisite(s): MKTG 3301 and BUSI 3301.

MKTG 3316. Consumer Behavior. 3 Credit Hours.

Analyze individual and group behavior of people performing in consumer role. Study buying motives, social class, and research techniques in consumer behavior. Prerequisite(s): MKTG 3301 and BUSI 3301.

MKTG 3317. Retailing. 3 Credit Hours.

Learn fundamental operations of retailing, studying of buying practices, pricing, store locations and layout, sales promotions, personnel management, and stock control. Study design to aid the student seeking a general knowledge of the retail field as well as those specializing in Marketing. Prerequisite(s): MKTG 3301 and BUSI 3301.

MKTG 3318. Promotional Strategy. 3 Credit Hours.

Study a controlled, integrated program of promotional variables. Learn how 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(s): MKTG 3301 and BUSI 3301.

MKTG 3320. Marketing Research. 3 Credit Hours.

Study accurate, objective, and systematic gathering, recording, and analyzing of data about problems relating to marketing goods and services. Prerequisite(s): MKTG 3301, BUSI 3301 and BUSI 3311.

MKTG 4301. Advertising. 3 Credit Hours.

Analyze advertising in modern media. Study the history, design, effects of advertising, and the uses of different media for advertising purposes. Prerequisite(s): MKTG 3301 and BUSI 3301.

MKTG 4302. Services Marketing. 3 Credit Hours.

Learn about service environment. Analyze the most successful service-oriented industries and firms within the world's fastest-growing economic sector. Prerequisite(s): MKTG 3301 and BUSI 3301.

MKTG 4305. Digital and Internet Marketing. 3 Credit Hours.

This course provides a theoretical and practical understanding of digital marketing. Students will learn various digital marketing practices such as managing and executing search engine optimization campaign (e.g., Google AdWords), building an effective website, and converting clicks into purchases through an experiential learning approach. Prerequisite: MKTG 3301.

MKTG 4316. Marketing Strategy. 3 Credit Hours.

Learning how to formulate and implement a strategic marketing plan to try to achieve a sustainable competitive advantage. This course uses practical approaches, including case studies and a marketing plan project. Prerequisites: MKTG 3301, MKTG 3316, and MKTG 3320 or permission of the instructor.

MKTG 4340. Marketing Seminar. 3 Credit Hours.

Examine the current issues/topics in Marketing. May be repeated for credit if the topic varies. Prerequisite(s): MKTG 3301, BUSI 3301 and permission of instructor.
MKTG 4354. International Marketing. 3 Credit Hours.
Study comparative marketing systems, including economic, social, technological, governmental, and political environments as they affect international marketing operations. Prerequisite(s): MKTG 3301, BUSI 3301 and BUSI 3344 or permission of department chair.

MKTG 4356. Global Marketing Practices. 3 Credit Hours.
Study basic international business concepts, cultural literacy, and discipline specific content applied to practical experiences and activities in a visited foreign country. A study abroad at the student's expense is required. Student may complete a maximum of six hours of SOBA sponsored study abroad toward degree completion. Field assignment fee: $75. Prerequisite(s): MKTG 3301, junior or senior standing and permission of instructor. BUSI 4354, MGMT 4356, or MKTG 4356 may not be taken concurrently.

MKTG 4384. Marketing Internship. 1-6 Credit Hours.
Participate in a marketing-related position with a public or private business organization that is preapproved and supervised. Acquiring a new marketing-related position after approval of the internship or the approval of experiences beyond the scope of the student's present job. May be repeated for a total of 6 hours credit. Prerequisite(s): MKTG 3301, Faculty Sponsorship, and permission of department chair. Field experiences fee: $75.

MKTG 4388. Marketing Problems. 1-6 Credit Hours.
Study of selected problems in marketing. Engage in independent research, reading and discussions under the personal direction of the instructor, topics may vary according to student need. May be repeated with permission of department chair. Prerequisite(s): Senior standing and permission of department chair.

MKTG 4389. Special Topics in Marketing. 3 Credit Hours.
Examine current topics in marketing. Explore required readings from current marketing publications and other related periodicals. May be repeated for credit when topics vary. Prerequisite(s): 9 hours of MKTG.

MKTG 5308. Marketing Management. 3 Credit Hours.
Study the planning and coordination of marketing functions specifically related to product, pricing, promotion, and distribution strategies. Explore case analysis and participate in presentation of results. Prerequisite(s): Marketing Leveling.

MKTG 5309. Marketing Strategy. 3 Credit Hours.
Develop the role of product, pricing, promotion, and channel and physical distribution in the development of a firm's integrated marketing program. Study cases used to evaluate and compose alternative courses of action.

MKTG 5310. Integrated Marketing Communications. 3 Credit Hours.
Study concepts associated with Integrated Marketing Communications (IMCs). Learn an experiential learning approach, wherein students apply the concepts learned in the classroom to the creation of an IMC campaign for an organization.

MKTG 5312. Brand Management. 3 Credit Hours.
Learn branding, what it is, how it works, how it acquires and maintains economic and non-economic value. Explore the origins, power, theory, meaning, relevance and practice of brands, brand development, brand metrics and brand management through an experiential learning approach. Prerequisite(s): MKTG 5308 or permission of department chair.

MKTG 5315. International Marketing. 3 Credit Hours.
Study comparative marketing systems, including economic, social technological, governmental, and political environments as the affect international marketing operations. Students will be required to complete an extensive research project in addition to other course requirements.

MKTG 5340. Marketing Seminar. 3 Credit Hours.
Explore selected marketing topics of current importance to business marketing. May be repeated once for credit when topics vary.

MKTG 5356. Global Marketing Practices. 3 Credit Hours.
Study of basic international business concepts, cultural literacy, and discipline specific content applied to practical experiences and activities in the foreign county. 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. Prerequisite(s) Course: Admission into a COBA graduate program and permission of instructor. Field experiences fee $75.

MKTG 5388. Marketing Problems. 1-3 Credit Hours.
(Credit-variable) Study selected problems in marketing. Engage in independent research, reading and discussions under the personal direction of the instructor, topics may vary according to student need. Prerequisite(s): Permission of department chair.

B.S. Aviation Science - Professional Pilot

OVERVIEW
The Aviation Science program at A&M-Central Texas provides students with a well-rounded curriculum with strong conceptual foundations in aviation science and management. A&M-Central Texas offers the only state-supported four-year professional pilot program in Texas.

The Aviation Science-Professional Pilot program offers both junior- and senior-level coursework. All lower-level core aviation and flight courses are transferred into A&M-Central Texas, as we do not have a flight school. This includes the required FAA Instrument Rating and the FAA Commercial Flight Certificate.

Students in the Professional Pilot option concentrate on aircraft flight operations, and are also well-prepared with qualifications as professional pilot with a science/technology orientation. Advanced aeronautical ratings complemented by business administration, management, and communication skills for professional pilots in the civil and military aviation industries are the focus of the curriculum.

Program Level Student Learning Outcomes
The student will be able to:

1. Comprehend technical aspects of advanced aircraft systems.
2. Explain the laws, regulations, and legal issues affecting the aviation industry.
3. Identify the issues affecting aviation safety and safety management.
4. Communicate proficiency in writing and oral presentations.
5. Evaluate the implications of an ethical dilemma from a variety of ethical frameworks.
6. Demonstrate management knowledge proficiency.

Technical Specialization:
The following courses are recommended for articulation upon receipt of licensure and compliance with these specific conditions:
1. The requesting student has earned:
   - A Commercial Pilot License and Instrument Rating, issued by the Federal Aviation Administration (FAA) and taught under Federal Aviation Regulation (FAR) Part 141 rules from an institution of higher learning (IHL).
   - The IHL has an authorized FAA Air Agency Certificate for both air and ground courses under Part 141 provisions.
   - The requesting student’s Commercial and Instrument certificates must be attached to this form.
   - With receipt of the qualified certificates and conditions listed above, TAMUCT will grant up to 42 credit hours of the lower-level aviation requirements upon enrollment into the Professional Pilot or Aviation Management degree programs.
   - If attending the Aviation Management – Maintenance Concentration, attach both the FAA issued Airframe and Powerplant license and TAMUCT will grant up to 33 credit hours of the lower-level requirements, if taken at an approved FAA Part 147 school.

2. If a student’s Instrument and Commercial pilot’s Licenses were obtained outside a partnering IHL and under the provisions of FAR Part 61 standards, only the following will be granted upon proof of FAA licensure enrollment at TAMUCT:
   - AIRP 2250 Instrument Rating
   - AIRP 2239 Commercial Flight
   - AIRP 1417 Private Flight

   The courses will be for three credit hours and a grade of P (Passing).

3. All collegiate Aviation Ground courses taught under FAR Part 141 approval from any IHL will be accepted towards the required 42 credit hours for lower-level aviation requirements for TAMUCT Professional Pilot degree.

4. If a student who has licensure through Instrument and Commercial Pilot ratings under FAR Part 61/141 conditions wishes to receive non-standard credit for all attendant collegiate ground courses based upon the FAA licensure alone, he can take an administered FAA written equivalent exam, administered under an online testing program for Private Pilot, Instrument and Commercial Pilot. Passing is 70%. All three tests must have a passing grade before the core 42 credit hour Aviation Ground courses will be applied to the Technical Specialization.

5. Aviation Management – Maintenance Concentration students must show recency of experience with licensure, not to exceed five years absence from the field.

Bachelor of Science Aviation Science - Professional Pilot Program Requirements

Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan. This program may require summer coursework.

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<td>CORE REQ American History (060)</td>
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<td>CORE REQ Government/Political Science (070)</td>
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<td>ECON 2302 Principles of Macroeconomics (CORE REQ 090)</td>
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<td>AVSC 4301 Aviation Law</td>
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<td>AVSC 4309 Aviation Security</td>
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<td>AVSC 4395 Capstone – Professional Pilot (Crew Resource Management)</td>
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<td>AVSC 4302 Advanced Aircraft Systems 2</td>
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<td>AVSC 3304 Airport Management 2</td>
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AVSC 3300. Maintenance Department Personal and Team Leadership. 3 Credit Hours.
This course examines the personal dynamics of self-motivation, personal organization, and organizing effective team structures and dealing with team interpersonal dynamics in an aviation maintenance facility. Prerequisite(s): Admission Requirements.

AVSC 3301. Air Carrier Operations. 3 Credit Hours.
Explore Federal Aviation Regulations relating to various specialized facets of the aviation industry, including airline operations, aircraft certification, air-worthiness standards and airport operations. Prerequisite(s): Commercial Pilot Certificate or permission of the department Chair.

AVSC 3302. Aviation Techniques of Instruction. 3 Credit Hours.
Examine the fundamentals of teaching and learning in an aviation oriented environment. Develop the techniques of instruction and the analysis of flight maneuvers, and demonstrate the theory of flight. Correlate Federal Aviation Regulations relating to the application of their flight instructor rating. Prerequisite(s): Commercial Pilot Certificate or permission of instructor.

AVSC 3303. Air Traffic Control. 3 Credit Hours.
Study FAA’s procedures for separating aircraft in the National Air Space, including the airport environment and enroute flight. Prerequisite(s): Acceptance into Professional Pilot program and Commercial Pilot Certificate or instructor approval.

AVSC 3304. Airport Management. 3 Credit Hours.
Examine requirements for developing a public airport to include local and state governmental agencies. Explore Federal aid and regulations, and the management required for the overall airport operations. Analyze tenant operators, leases, property development for non-aviation use, user taxation for airport operations, planning and policies, organization and administration, maintenance, safety and airport fuels and regulations. Prerequisite(s): Acceptance into Aviation Management or Professional Pilot program.

AVSC 3307. Aviation History. 3 Credit Hours.
(WI) Study the people and events from ancient times through the present that have influenced modern aviation internationally. Examine historical evidence and recorded documents to understand the role aviation has played in world events. Prerequisite(s): Acceptance into Aviation Management or Professional Pilot program.

AVSC 3308. Aviation History II. 3 Credit Hours.
Study the people and events from 1939 to the present that have influenced modern aviation internationally. Examine historical evidence and recorded documents to understand the role aviation has played in world events. Prerequisite(s): Junior classification.

AVSC 3310. Managing Maintenance Organizations and People. 3 Credit Hours.
Overview of the role of aviation maintenance management, and an introduction to leadership theory and practice. Includes defining of mission and goals, organizing work, and managing human performance. Prerequisite(s): Admission to program.

AVSC 3321. Airline Management. 3 Credit Hours.
Discover the behind-the-scenes activities involved in the business of airline operations. Prerequisite(s): Acceptance into Aviation Management program.

AVSC 3333. Airports and Environmental Impact. 3 Credit Hours.
Review the FAA advisory circular topics such as sustainability, solar alternative energy, environmental hazards and prevention of mishaps with an emphasis on the importance of environmental concerns in modern airports and the impact on the surrounding communities and ecosystems. Prerequisite(s): Acceptance into Aviation Management program.

AVSC 3339. Basic Ground Instructor. 3 Credit Hours.
The Basic Ground Instructor (BGI) course prepares students to take the ground instruction exam required for a sport pilot, recreational pilot, or private pilot certificate. Topics covered include aviation weather, navigation, aircraft systems and related materials to the BGI certificate. The BGI course also includes Fundamentals of Instruction (FOI) knowledge test preparation, both of which are required for licensure by the FAA. Prerequisite(s): Must be at least 18 years old.

AVSC 3350. Technical and Professional Communications for Aviation. 3 Credit Hours.
(WI) This course covers the technical communication principles and practices used in the aviation maintenance workplace. Students learn the technical writing of reports and correspondence using electronic information retrieval and presentation. Prerequisite(s): Admission to program.

AVSC 4301. Aviation Law. 3 Credit Hours.
Explore the distinctive body of statutes, treaties, regulation and case law related to general aviation. Examine specialized rules and laws that have been developed due to the distinctive nature of the airplane as a mode of transportation. Prerequisite(s): Acceptance into Aviation Management or Professional Pilot program.

AVSC 4302. Advanced Aircraft Systems. 3 Credit Hours.
Study aerodynamics, federal aviation regulations, weight, balance, and turbine systems, and their relationship with aircraft systems. Apply and operate advanced aircraft systems used by commercial pilots in air carrier operations. Prerequisite(s): Acceptance into Aviation Management or Professional Pilot program.

AVSC 4308. Aviation Safety. 3 Credit Hours.
Analyze effective procedures and techniques in the development and supervision of an Aviation Safety program. Study aircraft accident prevention, and the use of statics in aviation safety. Special emphasis on safety measures and education media materials. Prerequisite(s): Acceptance into Aviation Management or Professional Pilot program.

AVSC 4309. Aviation Security. 3 Credit Hours.
(WI) Consider the use of situational awareness, teamwork, and effective communication to recognize and thwart security threats in the aviation environment. Analyze the use of effective procedures and policies to recognize and prevent the intentional act of humans to cause harm or disruption through aviation.
AVSC 4321. Certification of Airports. 3 Credit Hours.
Discuss the requirements and procedures in seeking government approvals for airport certification as it applies to general aviation and air carrier operations. Students are advised to take a writing intensive course prior to enrolling. Prerequisite(s): AVSC 3321 and acceptance into Aviation Management program.

AVSC 4333. General Aviation and Corporate Business Aviation. 3 Credit Hours.
Study the business skills and knowledge needed to operate a small aviation business. Gain an understanding of the operational managerial aspects of general aviation and corporate business aviation.

AVSC 4344. Historical Application of Aircraft Design. 3 Credit Hours.
Study the evolution, concepts, and design aspects used in aircraft development. Construct and evaluate scale models of historical aircraft. Special emphasis on aerodynamic efficiency and aircraft manufacturing.

AVSC 4350. Aviation Seminar. 3 Credit Hours.
Explore selected topics in aviation. May be repeated for credit when topics vary. Prerequisite(s): Permission of department chair.

AVSC 4360. Aviation Maintenance Management – Global Perspective. 3 Credit Hours.
Analyzes the global aviation management field with a trend analysis differentiating the divergent methodologies of maintenance management between airlines, cultures, international law, parts acquisition and labor. Prerequisite(s): Admission to program.

AVSC 4384. Aviation Internship. 3 Credit Hours.
Experience supervised Aviation Management in a fixed base operations, regional/major airline operations or municipal airport management operations setting. Analyze management problems, develop solution techniques, and understand customer service as an important phase of the management process. Prerequisite(s): 12 hours of upper-level aviation courses, AVSC 3304 and permission of instructor. Field assignment fee $75.

AVSC 4388. Aviation Problems. 1-3 Credit Hours.
Explore selected topics in aviation. May be repeated for credit when topics vary. Prerequisite(s): Permission of department chair.

AVSC 4395. Capstone – Professional Pilot (Crew Resource Management). 3 Credit Hours.
Practice the knowledge, skills, attitudes, and abilities attained in the program in demonstrating and utilizing Crew Resource Management (CRM), a teamwork approach to situational awareness and management. Prerequisite(s): Senior standing and acceptance in Professional Pilot program.

AVSC 4396. Capstone – Aviation Management (Emergency Preparedness). 3 Credit Hours.
Practice the knowledge, skills, attitudes, and abilities attained in the program in demonstrating emergency preparedness in simulated emergency scenarios. Prerequisite(s): Senior standing and acceptance in Aviation Management program.

B.S. Biology

OVERVIEW
Biology is a multidisciplinary cutting-edge field encompassing the vast diversity of life from the smallest amino acid to ecosystem dynamics.
Our program includes a diversity of courses that are taught by faculty who are dedicated to quality education through scholarship and research. The breadth of our faculty interests and experiences enable students to specialize their degree in sub-disciplines of biology such as biotechnology, ecology and conservation biology, organismal biology.

Program Level Student Learning Outcomes
The student will be able to:
1. Explain biological concepts across sub disciplines.
2. Implement research methodology as it applies across the various biological subdisciplines.
3. Critically evaluate scientific research in the biological sciences.
4. Demonstrate strong communication skills.

Program Entry Requirements
Students will be admitted into the Biology major by the faculty once the application criteria are met. To be accepted into the Biology program, students must:
• Have an overall GPA of 2.75 or higher.

Bachelor of Science Biology - Biotechnology Concentration
Program Requirements
Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan.

<table>
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<th>Code</th>
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<th>Credit Hours</th>
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<tr>
<td><strong>Fall</strong></td>
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<td>General Chemistry I (Lecture + Lab) (CORE REQ (030)</td>
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<td>CHEM 4430</td>
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<td>CHEM 3415</td>
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<td>BIOL 4380</td>
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1. Lower Level Electives, Any Level Electives, Component Area Options or Degree Requirements (DEG REQ) may consist of the FOS courses: BIOL 1406, BIOL 1407, CHEM 1411, CHEM 1412, CHEM 2423, PHYS 1401 or (the 3 credit hour course plus the 1 credit hour lab).

2. Courses must be completed with a "C" or better.

### Bachelor of Science Biology - Ecology/Conservation Concentration Program Requirements

Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan.
Bachelor of Science Biology - Organismal Biology Concentration

Program Requirements

Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan.

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1 Lower Level Electives, Any Level Electives, Component Area Options, or Degree Requirements (DEG REQ) may consist of the FOS courses: BIOL 1406, BIOL 1407, CHEM 1411, CHEM 1412, CHEM 2423, PHYS 1401 or (the 3 credit hour course plus the 1 credit hour lab).

2 Courses must be completed with a "C" or better.

Courses

**BIOL 1106. Biology for Science Majors Lab I. 1 Credit Hour.**

(030) This laboratory-based course accompanies Biology 1306, Biology for Science Majors I. 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.

**BIOL 1107. Biology for Science Majors Lab II. 1 Credit Hour.**

(030) This laboratory-based course accompanies Biology 1307, Biology for Science Majors II. 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.

**BIOL 1108. Biology for Non-Science Majors Lab I. 1 Credit Hour.**

(030) This laboratory-based course accompanies BIOL 1308, Biology for Non-Science Majors I. Laboratory activities will reinforce a survey of biological principles with an emphasis on humans, including chemistry of life, cells, structure, function, and reproduction.

**BIOL 1109. Biology for Non-Science Majors Laboratory II. 1 Credit Hour.**

(030) This laboratory-based course accompanies BIOL 1309, Biology for Non-Science Majors II. Laboratory activities will reinforce a survey of biological principles with an emphasis on humans, including evolution, ecology, plant and animal diversity, and physiology.
BIOL 1111. General Botany (Lab). 1 Credit Hour.
(030) This laboratory-based course accompanies Biology 1311, General Botany. Laboratory activities will reinforce fundamental biological concepts relevant to plant physiology, life cycle, growth and development, structure and function, and cellular and molecular metabolism. The role of plants in the environment, evolution, and phylogeny of major plant groups, algae, and fungi. (This course is intended for science majors.)

BIOL 1113. General Zoology (Lab). 1 Credit Hour.
(030) This laboratory-based course accompanies Biology 1313, General Zoology. Laboratory activities will reinforce fundamental biological concepts relevant to animals, including systematics, evolution, structure and function, cellular and molecular metabolism, reproduction, development, diversity, phylogeny, and ecology. (This course is intended for science majors.)

BIOL 1306. Biology for Science Majors I (Lecture). 3 Credit Hours.
(030) 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.

BIOL 1307. Biology for Science Majors II (Lecture). 3 Credit Hours.
(030) 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. Prerequisite(s): MATH 1314 or concurrent enrollment in higher-level mathematics is recommended.

BIOL 1308. Biology for Non-Science Majors I. 3 Credit Hours.
(030) Provides a survey of biological principles with an emphasis on humans, including chemistry of life, cells, structure, function, and reproduction.

BIOL 1309. Biology for Non-Science Majors II (Lecture). 3 Credit Hours.
(030) This course will provide a survey of biological principles with an emphasis on humans, including evolution, ecology, plant and animal diversity, and physiology.

BIOL 1311. General Botany (Lecture). 3 Credit Hours.
(030) Fundamental biological concepts relevant to plant physiology, life cycle, growth and development, structure and function, and cellular and molecular metabolism. The role of plants in the environment, evolution, and phylogeny of major plant groups, algae, and fungi. (This course is intended for science majors.) Prerequisite(s): MATH 1314 or concurrent enrollment in higher level mathematics is recommended.

BIOL 1313. General Zoology (Lecture). 3 Credit Hours.
(030) Fundamental biological concepts relevant to animals, including systematics, evolution, structure and function, cellular and molecular metabolism, reproduction, development, diversity, phylogeny, and ecology. (This course is intended for science majors.) Prerequisite(s): MATH 1314 or concurrent enrollment in higher level mathematics is recommended.

BIOL 1322. Nutrition & Diet Therapy. 3 Credit Hours.
(030) (080) This course introduces general nutritional concepts in health and disease and includes practical applications of that knowledge. Special emphasis is given to nutrients and nutritional processes including functions, food sources, digestion, absorption, and metabolism. Food safety, availability, and nutritional information including food labels, advertising, and nationally established guidelines are addressed. (Cross-listed as HECO 1322).

BIOL 1406. Biology for Science Majors I (Lecture + Lab). 4 Credit Hours.
(030) This lecture and lab course should combine all of the elements of BIOL 1306 Biology for Science Majors I (lecture) and BIOL 1106 Biology for Science Majors I (lab), including the learning outcomes listed for both courses.

BIOL 1407. Biology for Science Majors II (Lecture + Lab). 4 Credit Hours.
(030) This lecture and lab course should combine all of the elements of BIOL 1307 Biology for Science Majors II (lecture) and BIOL 1107 Biology for Science Majors II (lab), including the learning outcomes listed for both courses.

BIOL 1408. Biology for Non-Science Majors I (Lecture + Lab). 4 Credit Hours.
(030) This lecture and lab course should combine all of the elements of BIOL 1308 Biology for Non-Science Majors I (lecture) and BIOL 1108 Biology for Non-Science Majors I (lab), including the learning outcomes listed for both courses.

BIOL 1409. Biology for Non-Science Majors II (Lecture + Lab). 4 Credit Hours.
(030) This lecture and lab course should combine all of the elements of BIOL 1309 Biology for Non-Science Majors II (lecture) and BIOL 1109 Biology for Non-Science Majors II (lab), including the learning outcomes listed for both courses.

BIOL 1411. General Botany (Lecture + Lab). 4 Credit Hours.
(030) Fundamental biological concepts relevant to plant physiology, life cycle, growth and development, structure and function, and cellular and molecular metabolism. The role of plants in the environment, evolution, and phylogeny of major plant groups, algae, and fungi.

BIOL 1413. General Zoology. 4 Credit Hours.
(030) Fundamental biological concepts relevant to animals, including systematics, evolution, structure and function, cellular and molecular metabolism, reproduction, development, diversity, phylogeny, and ecology.

BIOL 1414. Introduction to Biotechnology I. 4 Credit Hours.
(030) Overview of classical genetics, DNA structure, the flow of genetic information, DNA replication, gene transcription, protein translation. Principles of major molecular biology and genetic engineering techniques, including restriction enzymes and their uses, major types of cloning vectors, construction of libraries, Southern and Northern blotting, hybridization, PCR, DNA typing. Applications of these techniques in human health and welfare, medicine, agriculture and the environment. Introduction to the human genome project, gene therapy, molecular diagnostics, forensics, creation and uses of transgenic plants and animal and animal cloning and of the ethical, legal, and social issues and scientific problems associated with these technologies. Relevant practical exercises in the above areas.

BIOL 1415. Introduction to Biotechnology II. 4 Credit Hours.
(030) Biology course that focuses on an integrative approach to studying biomolecules with an emphasis on protein structures, functions and uses in the modern bioscience laboratory. Students will investigate the mechanisms involved in the transfer of information from DNA sequences to proteins to biochemical functions. The course will integrate biological and chemical concepts with techniques that are used in research and industry. Critical thinking will be applied in laboratory exercises using inquiry-based approaches, troubleshooting, and analyzing experimental data.

BIOL 2101. Anatomy & Physiology I (Lab). 1 Credit Hour.
(030) The lab provides a hands-on learning experience for exploration of human system components and basic physiology. Systems to be studied include integumentary, skeletal, muscular, nervous, and special senses.
BIOL 2102. Anatomy & Physiology II (Lab). 1 Credit Hour.
(030) The lab provides a hands-on learning experience for exploration of human system components and basic physiology. Systems to be studied include endocrine, cardiovascular, immune, lymphatic, respiratory, digestive (including nutrition), urinary (including fluid and electrolyte balance), and reproductive (including human development and genetics).

BIOL 2106. Environmental Biology (Lab). 1 Credit Hour.
(030) This laboratory-based course accompanies Biology 2306, Environmental Biology. Laboratory activities will reinforce principles of environmental systems and ecology, including biogeochemical cycles, energy transformations, abiotic interactions, symbiotic relationships, natural resources and their management, lifestyle analysis, evolutionary trends, hazards and risks, and approaches to ecological research.

BIOL 2116. Genetics (Lab). 1 Credit Hour.
(030) Study of the principles of molecular and classical genetics and the function and transmission of hereditary material. May include population genetics and genetic engineering.

BIOL 2120. Microbiology for Non-Science Majors Laboratory. 1 Credit Hour.
(030) This course covers basics of culture and identification of bacteria and microbial ecology. This course is primarily directed at pre-nursing and other pre-allied health majors and covers basics of microbiology. Emphasis is on medical microbiology, infectious diseases, and public health.

BIOL 2121. Microbiology for Science Majors Laboratory (Lab). 1 Credit Hour.
(030) Principles of microbiology, including metabolism, structure, function, genetics, and phylogeny of microbes. The course will also examine the interactions of microbes with each other, hosts, and the environment.

BIOL 2126. Microbiology for Science Majors (Lecture + Lab). 4 Credit Hours.
(030) This lecture and lab course should combine all of the elements listed for both courses.

BIOL 2128. Microbiology for Science Majors Laboratory (lab), including the lecture + lab. 4 Credit Hours.

BIOL 2301. Anatomy & Physiology I. 3 Credit Hours.
(030) Anatomy and Physiology I is the first part of a two course sequence. It is a study of the structure and function of the human body including cells, tissues and organs of the following systems: integumentary, skeletal, muscular, nervous and special senses. Emphasis is on interrelationships among systems and regulation of physiological functions involved in maintaining homeostasis.

BIOL 2302. Anatomy & Physiology II (Lecture). 3 Credit Hours.
(030) Anatomy and Physiology II is the second part of a two-course sequence. It is a 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.

BIOL 2306. Environmental Biology (Lecture). 3 Credit Hours.
(030) Principles of environmental systems and ecology, including biogeochemical cycles, energy transformations, abiotic interactions, symbiotic relationships, natural resources and their management, lifestyle analysis, evolutionary trends, hazards and risks, and approaches to ecological research.

BIOL 2316. Genetics (Lecture). 3 Credit Hours.
(030) Study of the principles of molecular and classical genetics and the function and transmission of hereditary material. May include population genetics and genetic engineering.

BIOL 2320. Microbiology for Non-Science Majors (Lecture). 3 Credit Hours.
(030) This course covers basic microbiology and immunology and is primarily directed at pre-nursing, pre-allied health, and non-science majors. It provides an introduction to historical concepts of the nature of microorganisms, microbial diversity, the importance of microorganisms and acellular agents in the biosphere, and their roles in human and animal diseases. Major topics include bacterial structure as well as growth, physiology, genetics, and biochemistry of microorganisms. Emphasis is on medical microbiology, infectious diseases, and public health.

BIOL 2321. Microbiology for Science Majors (Lecture). 3 Credit Hours.
(030) Principles of microbiology, including metabolism, structure, function, genetics, and phylogeny of microbes. The course will also examine the interactions of microbes with each other, hosts, and the environment. Prerequisite(s): CHEM 1311 and CHEM 1111 or CHEM 1411 and BIOL 1306 and BIOL 1106 or BIOL 1406.

BIOL 2401. Anatomy and Physiology I. 4 Credit Hours.
(030) Anatomy and Physiology I is the first part of a two course sequence. It is a study of the structure and function of the human body including cells, tissues and organs of the following systems: integumentary, skeletal, muscular, nervous and special senses. Emphasis is on interrelationships among systems and regulation of physiological functions involved in maintaining homeostasis.

BIOL 2402. Anatomy and Physiology II. 4 Credit Hours.
(030) Anatomy and Physiology II is the second part of a two-course sequence. It is a 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.

BIOL 2404. Anatomy & Physiology (specialized, single semester course, lecture + lab). 4 Credit Hours.
(030) Study of the structure and function of human anatomy, including the neuroendocrine, integumentary, musculoskeletal, digestive, urinary, reproductive, respiratory, and circulatory systems. Content may be either integrated or specialized.

BIOL 2406. Environmental Biology (Lecture + Lab). 4 Credit Hours.
(030) This lecture and lab course should combine all of the elements of BIOL 2306 (lecture) and BIOL 2106 (lab), including the learning outcomes listed for both courses.

BIOL 2416. Genetics (Lecture + Lab). 4 Credit Hours.
(030) Study of the principles of molecular and classical genetics and the function and transmission of hereditary material. May include population genetics and genetic engineering.

BIOL 2420. Microbiology for Non-Science Majors (Lecture + Lab). 4 Credit Hours.
(030) This lecture and lab course should combine all of the elements of BIOL 2320 Microbiology for Non-Science Majors (lecture) and BIOL 2120 Microbiology for Non-Science Majors Laboratory (lab), including the learning outcomes listed for both courses.

BIOL 2421. Microbiology for Science Majors. 4 Credit Hours.
(030) Principles of microbiology, including metabolism, structure, function, genetics, and phylogeny of microbes. The course will also examine the interactions of microbes with each other, hosts, and the environment.
BIOL 3315. Advanced Physiology. 3 Credit Hours.
Study human physiology at the biochemical, cellular, tissue, and organ level. Designed for upper division science and nursing majors. Prerequisite(s): BIOL 1406.

BIOL 3318. Animal Physiology. 3 Credit Hours.
Explore mammalian physiology as well as other selected vertebrate taxa. Special emphasis on organ-system physiology, and cellular and molecular mechanisms in order to present a current view of physiological principles. Highlights the nervous, muscular, cardiovascular, respiratory, renal, digestive, and endocrine physiology. Prerequisite(s): BIOL 1407.

BIOL 3380. Research Methods. 3 Credit Hours.
(WI) Explore the general principles and procedures of scientific research with an emphasis on the use of scientific literature and the methods of research. Prerequisite(s): Junior standing.

BIOL 3400. Introduction to Biology. 4 Credit Hours.
Gain an understanding of basic principles and unifying concepts in biology. Topics include scientific inquiry, basic biochemistry, cell structure and function, genetics, evolution, diversity of life, and anatomy and physiology. For non-biology majors. Laboratory sessions will provide experience with selected biological principles and practices.

BIOL 3401. Ecology. 4 Credit Hours.
(WI) Explore interactions at the organismal, population, and community level, and apply ecological theory to current environmental problems. Emphasis in the laboratory and field exercises is placed on the ecological methodology and the application of these methods. Students are required to use various statistical methods to analyze and interpret the data. Lab fee: $30. Prerequisite(s): BIOL 1407.

BIOL 3420. Entomology. 4 Credit Hours.
Explore the largest and most diverse group of animals on our planet. Examining the physiology, morphology, life histories, diversity, ecology, and evolution of insects. The laboratory focuses on the anatomy and classification of insects. Insect collection is required. Lab fee: $30. Prerequisite(s): BIOL 1407.

BIOL 3430. Botany. 4 Credit Hours.
Analyze the internal organization of plants, particularly angiosperms, with an emphasis on understanding anatomy from a structure-function standpoint. Lab fee: $30. Prerequisite(s): BIOL 1407.

BIOL 3440. Invertebrate Zoology. 4 Credit Hours.
Learn the biology, ecology, taxonomy and comparative anatomy of animals within the invertebrate phylum. Analyze live and preserved specimens in the field and laboratory. Prerequisite(s): BIOL 1407.

BIOL 3445. Comparative Vertebrate Zoology. 4 Credit Hours.
Learn the biology, ecology, taxonomy, and comparative anatomy of animals within the vertebrate phylum. Analyze live and preserved specimens in the field and laboratory. Lab fee: $30. Prerequisite(s): BIOL 1407.

BIOL 3452. Principles of Genetics. 4 Credit Hours.
Explore the mechanisms of inheritance, from bacteria to humans, as well as mutations and phenotypes, Mendelian genetics, population genetics and evolution, and complex inheritance. Lab fee: $30. Prerequisite(s) BIOL 1407.

BIOL 3471. Microbiology. 4 Credit Hours.
Introduction to modern microbiology with emphasis on prokaryotes; includes microbial cell structure, function, and physiology; genetics, evolution, and taxonomy; bacteriophages and viruses; pathogenesis and immunity; and ecology and biotechnology. The laboratory will focus on microbial growth and bacterial identification. Three hours of lecture and three hours of laboratory. Prerequisite(s): BIOL 1407.

BIOL 4301. Conservation Biology. 3 Credit Hours.
Examine conservation of biological diversity at gene, population, species, ecosystem, and global levels. Provides an overview of conservation biology including the causes and consequences of biodiversity loss, conservation approaches and strategies, and the ecological and evolutionary theory underlying these approaches. Prerequisite(s): BIOL 3401.

BIOL 4302. Restoration Ecology. 3 Credit Hours.
Explore the fundamental principles of ecological restoration. Survey the discipline, and the scientific, ethical, and philosophical underpinnings that guide ecological restoration. Principles of ecosystem ecology are introduced to provide an understanding of ecosystem processes across landscapes and within specific restoration sites. Prerequisite(s): BIOL 3401.

BIOL 4346. Animal Behavior. 3 Credit Hours.
Study vertebrate and invertebrate animal behavior. Basic topics include animal learning, mechanisms of behavior, foraging, competition, defense, aggression, sensory systems, communication, mating systems and parental care behavior. Prerequisite(s): BIOL 1407.

BIOL 4372. Virology. 3 Credit Hours.
Study viruses with an emphasis on biology, diversity, and medical importance. Focusing primarily on human and animal viruses, and the molecular and clinical aspects of virology. Prerequisite(s): BIOL 4470.

BIOL 4373. Immunology. 3 Credit Hours.
Explore the basic biological concepts of immunology. Study immunology from the viewpoints of developmental biology, molecular biology, genetics, biochemistry, microbiology, anatomy, and medicine. Prerequisite(s): BIOL 4470.

BIOL 4380. Evolution. 3 Credit Hours.
Examine evolutionary theory, including the historical development of components of evolutionary theory, population level microevolution, the fossil record, and macroevolution. Prerequisite(s): BIOL 1407 and BIOL 3452.

BIOL 4389. Special Topics in Biology. 1-3 Credit Hours.
Examine selected topics in biology. Course may be repeated for credit when topics vary. Prerequisite(s): Permission of department chair.

BIOL 4395. Biology Capstone. 3 Credit Hours.
(WI) Capstone seminar focusing on life science research conducted by seniors and faculty. Prerequisite(s): BIOL 3380 and senior standing.

BIOL 4451. Bioinformatics. 4 Credit Hours.
Study how genomic sequence and its variations affect phenotypes. Focuses on the information available from DNA sequencing projects, ranging from the sequences of individual genes to those of entire genomes. Learn analytical techniques that can be used to evaluate sequence data, and examples of their biological significance. Prerequisite(s): BIOL 4470 and BIOL 4471.

BIOL 4470. Cell Biology. 4 Credit Hours.
Study the cell at the structural, functional, and molecular levels. Emphasis is placed on the molecular mechanisms of cell metabolism, growth, division, and communication. The laboratory focuses on cell structure and laboratory techniques. Lab fee: $30. Prerequisite(s): BIOL 1407.

BIOL 4471. Molecular Biology. 4 Credit Hours.
Study modern molecular biology with an emphasis on gene structure and activity, and the biochemistry related to understanding the functions of the gene. Prerequisite(s): BIOL 1407 and BIOL 4470.
BIOL 4475. Proteomics. 4 Credit Hours.
Study the theory and practice of current techniques of protein analysis including separation, quantification, sequencing, and identification. Current research advances and case studies are also examined. Prerequisite(s): BIOL 4471.

B.S. Criminal Justice

OVERVIEW
The Bachelor of Science degree in Criminal Justice prepares students for a variety of careers, including law enforcement (local, state, and federal), probation and parole, institutional corrections, and research.

Students in the program find a supportive environment that challenges and empowers them to explore their individual interests in the wide realm of study in criminal justice. The Criminal Justice program is led by highly qualified faculty members who have both real-world experience and scholarly experience to enrich your learning.

Eligible students are encouraged to join the Omega Lambda chapter of Alpha Phi Sigma, the national honor society for criminal justice. Students may also join the Criminal Justice Association (CJA), which is open to criminal justice and non-criminal justice members who are interested in the field and want to engage in service within the local community and region.

Our diverse inventory of upper-level classes balances the major domains of criminal justice, including law enforcement, corrections, courts, victims, offenders, and practitioners.

Program Level Student Learning Outcomes
The student will be able to:

1. Explain concepts, major criminological theories, empirical findings, and trends in criminal justice.

2. Apply legal and ethical principles to the practice of criminal justice.

3. Describe the structure and functioning of institutions in criminal justice.

4. Identify the racial and ethnic issues associated with the practice of criminal justice.

5. Demonstrate writing skills appropriate for upper-level coursework and criminal justice occupations.

Bachelor of Science - Criminal Justice Program Requirements
Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan.

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Courses

CRIJ 1301. Introduction to Criminal Justice. 3 Credit Hours.
(080) This course provides a historical and philosophical overview of the American criminal justice system, including the nature, extent, and impact of crime; criminal law; and justice agencies and processes.

CRIJ 1306. Court Systems & Practices. 3 Credit Hours.
(080) This course is a study of the court system as it applies to the structures, procedures, practices and sources of law in American courts, using federal and Texas statutes and case law.

CRIJ 1307. Crime in America. 3 Credit Hours.
(080) American crime problems in historical perspective, social and public policy factors affecting crime, impact and crime trends, social characteristics of specific crimes, and prevention of crime.

CRIJ 1310. Fundamentals of Criminal Law. 3 Credit Hours.
(080) This course is the study of criminal law including application of definitions, statutory elements, defenses and penalties using Texas statutes, the Model Penal Code, and case law. The course also analyzes the philosophical and historical development of criminal law and criminal culpability.

CRIJ 2313. Correctional Systems & Practices. 3 Credit Hours.
(080) This course is a survey of institutional and non-institutional corrections. Emphasis will be placed on the organization and operation of correctional systems; treatment and rehabilitation; populations served; Constitutional issues; and current and future issues.

CRIJ 2314. Criminal Investigation. 3 Credit Hours.
Investigative theory; collection and preservation of evidence; sources of information; interview and interrogation; uses of forensic sciences; case and trial preparation.

CRIJ 2328. Police Systems & Practices. 3 Credit Hours.
(080) This course examines the establishment, role and function of police in a democratic society. It will focus on types of police agencies and their organizational structure, police-community interaction, police ethics, and use of authority.

CRIJ 3300. Juvenile Delinquency. 3 Credit Hours.
Study the nature, extent, causation, treatment, and prevention of juvenile delinquency, including a survey of the procedures and operations of the juvenile justice agencies.

CRIJ 3301. Female Offenders. 3 Credit Hours.
Study female offenders in the criminal justice system, including historical perspectives, juvenile offenders, programming and treatment, and prison and community corrections.

CRIJ 3305. Criminology. 3 Credit Hours.
Study and critique various theories of crime causation, including an examination of classical, biological, psychological, and sociological perspectives on the etiology of crime. Maybe crosslisted with SOCI 3305. Only one may be taken for credit.

CRIJ 3310. Criminal Justice Supervision and Management. 3 Credit Hours.
Study theories and principles of supervision as applied to criminal justice agencies including organization, leadership, motivation, human resources flow, and managerial ethics. Prerequisite(s): Junior classification or permission of instructor.

CRIJ 3311. Techniques of Interviewing. 3 Credit Hours.
Study interview and interrogation techniques, including preparation, environmental and psychological factors, legal issues, and ethics.

CRIJ 3315. Criminal Evidence. 3 Credit Hours.
Analyze 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 3316. Methods of Criminal Justice Research. 3 Credit Hours.
(WI) Learn the methods of criminological and criminal justice research, with emphasis on research ethics, research design, and methods of data collection and analysis.

CRIJ 3320. Policing. 3 Credit Hours.
Examine law enforcement, and the role of police in communities and society. Learn to critically evaluate policing as a profession. Special emphasis on dispelling myths and providing tools needed to reach conclusions based upon the available research in the field of police work.

CRIJ 3325. Institutional Corrections. 3 Credit Hours.
Study the structure and function of correctional systems and how various philosophies of correctional treatment affect the operation of confinement institutions.

CRIJ 3330. Community Corrections. 3 Credit Hours.
Study the philosophy, administrative procedures, and operational techniques used in the community based treatment and supervision of offenders.

CRIJ 3340. Homeland Security. 3 Credit Hours.
Study the strategic, legal, policy, operational, and organizational issues associated with the defense of the U.S. homeland from foreign and domestic terrorist threats. Examine the 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 3345. Criminal Justice and Moving Images. 3 Credit Hours.
Explore the role of film, television, and other moving images in the development of perceptions and stereotypes of criminals, victims, and criminal justice professionals, and institutions.

CRIJ 3352. Physical Aspects of Forensic Science. 3 Credit Hours.
Examines various forensic physical sciences and their relation to crime scene investigation and the collection, preservation and identification of evidence. Introduces methods of laboratory analysis of fingerprints, firearms, tool marks, and documents, and evaluates trace evidence, such as glass, soil, paint, hairs, and fibers. Materials fee $15.

CRIJ 3353. Biological Aspects of Forensic Science. 3 Credit Hours.
Examines various forensic biological sciences and their relation to crime scene investigation and the collection, preservation and identification of evidence. Introduces methods of laboratory analysis including forensic disciplines of pathology, anthropology, odontology, entomology, toxicology, serology, DNA, and blood pattern analysis. Materials fee $15.
CRIJ 3384. Criminal Justice Field Experience. 3 Credit 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. Field experience fee $75.

CRIJ 4300. Treatment in Corrections. 3 Credit Hours.
Examines the various types of treatment provided in corrections. Students learn about treatment practices and programs used in corrections, with an emphasis on evidence-based practices. Examines research on the effectiveness of treatment programs.

CRIJ 4303. Race, Crime, and Justice. 3 Credit Hours.
Examines racial profiling, immigration, and the death penalty in the context of criminal justice practice. Provides current issues regarding the relationship between race and ethnicity and all components of the criminal justice system in the US.

CRIJ 4308. Victimology. 3 Credit Hours.
This course includes a comprehensive study of victimization, including the relationship between the victims and offenders, and their interaction with the criminal justice system.

CRIJ 4312. Criminal Justice Ethics. 3 Credit Hours.
(WI) Analyze contemporary ethical issues in crime and justice. Classical and contemporary ethical theories are applied to the discussion of such issues as discretion, corruption, use of force, racism, deception, professionalism, and the nature and meaning of justice.

CRIJ 4315. Criminal Justice Statistics. 3 Credit Hours.
Learn statistical concepts and techniques that can assist in evaluating research. Techniques include measures of central tendency, dispersion, and significance. Examine hypothesis testing using t-tests, ANOVA, and Chi square, and learn to manipulate, analyze, and interpret data using SPSS.

CRIJ 4316. Methods of Criminal Justice Research. 3 Credit Hours.
(WI) Learn the methods of criminological and criminal justice research, with emphasis on research ethics, research design, and methods of data collection and analysis.

CRIJ 4320. Criminal Justice Statistics II. 3 Credit Hours.
Learn intermediate-level statistics used in Criminal Justice research, with focus on statistical analyses commonly used in hypothesis testing with an introduction to measures of association and multivariate analyses. Prerequisite(s): CRIJ 4315 or permission of instructor.

CRIJ 4350. Advanced Investigation. 3 Credit Hours.
Explore advanced criminal and civil investigation, with an introduction to special investigative techniques. Emphasis on crime scene processing, crime scene analysis, forensic evaluations, investigative techniques, and investigative surveys.

CRIJ 4351. Forensic Anthropology. 3 Credit Hours.
 Applies the science of physical anthropology to the legal investigative process. Identifies human remains, as well as age, sex, ancestry, and stature of those remains and how these are used to help establish positive identification. Special emphasis placed on skeletal trauma and pathologic to determine cause and manner death. Cross-listed with ANTH 4351; only one may be taken for credit. Material fee $15.

CRIJ 4388. Criminal Justice Problems. 3 Credit Hours.
Engage in independent reading, research, and discussion on selected criminal justice topics. Entry into this course will be arranged by the instructor.

CRIJ 4389. Special Topics in Criminal Justice. 3 Credit Hours.
Explore selected criminal justice topics. Topics will vary according to timeliness and special needs. May be taken more than once for credit.

CRIJ 4395. Criminal Justice Senior Seminar. 3 Credit Hours.
(WI) Utilize knowledge of the criminal justice system in the capstone of the criminal justice curriculum. Examine current practices related to operations, recruitment, testing, training, and law, to prepare for entry to the criminal justice profession. Prerequisite(s): CRIJ 3305, CRIJ 3310 and CRIJ 4316. Restricted to senior-year CJ majors.

CRIJ 5090. Criminal Justice Comprehensive Examination. 0 Credit Hours.
Study and integrate criminal justice knowledge in order to take the criminal justice comprehensive exam for non-thesis students. Non-thesis students should register for the comprehensive examination during their final semester of graduate coursework, or upon permission of advisor. All comprehensive examinations will be written, but an oral component may also be required. A maximum of three attempts will be allowed. Thesis students do not take this examination.

CRIJ 5198. Criminal Justice Thesis. 1-3 Credit Hours.
Prepare and write a graduate thesis in the field of criminal justice. This course represents a student's initial and continuing thesis enrollment. At least six total hours is required to complete the thesis requirement. The student continues to enroll in this course until the thesis is submitted and the thesis is successfully defended.

CRIJ 5300. Linear Regression. 3 Credit Hours.
Introduces students to statistical concepts and techniques that can assist them in evaluating research and in engaging in research on the graduate level. Both bivariate and multiple regression techniques will provide the main content of the course. Prerequisite(s): 3 hours in undergraduate or graduate statistics, or consent of instructor.

CRIJ 5301. Advanced Criminology. 3 Credit Hours.
Examine major theoretical perspectives of crime and deviance. Analyze theories for their logical and empirical adequacy in light of what is known about the distribution of crime and deviant behavior. Prerequisite(s): Undergraduate or graduate coursework in Criminology or permission of instructor.

CRIJ 5303. Race and Ethnicity. 3 Credit Hours.
Examine issues related to racial and ethnic minorities and crime in America, including perceptions of race, class, offending, and victimization. Emphasis on disparities in offending, victimization, law enforcement practices, trial process, and sentencing.

CRIJ 5304. Advanced Methods in Criminal Justice. 3 Credit Hours.
Study social scientific research methods applied to criminal justice research, and critically examine research designs and published findings. Includes an advanced review of procedures and techniques for research in criminology, law enforcement, courts, and corrections. Prerequisite(s): Undergraduate or Graduate course in Research Methods or permission of instructor.

CRIJ 5306. Criminal Justice Program Evaluation. 3 Credit Hours.
Learn to define program evaluation, the need for program evaluations, and the methods used to conduct evaluations.

CRIJ 5307. Homeland Security. 3 Credit Hours.
Study strategic, legal, policy, operational, and organizational issues associated with the defense of the U.S. homeland from foreign and domestic terrorist threats. Topics include legal issues in Homeland Security, effective interfacing between local, state, and federal agencies, emergency management operations, and planned response strategies. Maybe crosslisted with HLS 5307. Only one may be taken for credit.
B.S. Liberal Studies

OVERVIEW

The Bachelor of Science in Liberal Studies is designed for mature students who seek a flexible degree program and who do not desire or may not meet the prerequisites of a highly structured traditional degree program. This program permits students to plan, with advisement, an individualized program with access to a wide range of academic disciplines and fields of professional study. The program is not designed to provide students with the depth of content in a concentration typically sufficient to prepare the student for advanced studies within an academic discipline related to this concentration.

Program Level Student Learning Outcomes

The student will be able to:

1. Demonstrate an understanding of interdisciplinarity.
2. Demonstrate an in-depth academic knowledge of three subject areas.
3. Research and understand problems and issues from an interdisciplinary perspective.
4. Synthesize an interdisciplinary perspective into a useful, meaningful, and practical whole.
5. Demonstrate strong writing, critical thinking, and analytical skills.

Bachelor of Science - Liberal Studies Program Requirements

Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan.

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Prerequisite: Graduate standing.

This course investigates interdisciplinary research methods and the application of these methods. Students research, write, and present projects on topic(s) related to their focus areas. Prerequisite: Graduate standing.

LIBS 5300. Interdisciplinary Methods. 3 Credit Hours.

This course investigates interdisciplinary research methods and the application of these methods. Students research, write, and present projects on topic(s) related to their focus areas. Prerequisite: Graduate standing.

LIBS 5398. Interdisciplinary Capstone. 3 Credit Hours.

N/A Course is being deleted. Prerequisite(s): N/A Course is being deleted.

B.S. Mathematics

OVERVIEW

A bachelor's degree in mathematics can help you achieve a variety of goals. Whether you're wanting to be a teacher, analyst, or researcher, our program is for you. Our quality program offers small classes, and students receive individual attention from faculty both in and out of the classroom. Courses clearly lay out basic theory while also providing exposure to essential practical skills such as quantitative reasoning, analysis, data analytics, use of technology, and programming using state-of-the-art software.

Graduates from the math program have a strong record of successful job placement. Through departmental connections, students have obtained training through paid internships with reputable organizations that provided valuable, real-world experience that opened career doors. Graduates have gained employment in companies such as State of Texas, Operational Command Center, Fort Hood, JP Morgan, Fidelity, and various software development companies, while many continue on to graduate study. In addition recent graduates in the 7-12 certification track have been hired in school districts throughout the region to teach in a variety of grade levels.

Program Level Student Learning Outcomes

The student will be able to:

1. Apply abstract mathematical ideas.
2. Demonstrate effective problem solving.
3. Apply mathematics to solve problems in other academic disciplines.
4. Effectively and appropriately utilize mathematical technology to understand mathematical ideas and solve mathematical problems.
5. Demonstrate knowledge necessary to earn certification from the State of Texas for students pursuing math teacher certification.

Bachelor of Science - Mathematics Major Program Requirements

Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.
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<tr>
<td>CORE REQ Communications (010)</td>
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<td>CORE REQ American History (060)</td>
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<td>CORE REQ Government/Political Science (070)</td>
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<td>Any Level Support Field Elective</td>
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<td>MATH 2415 Calculus III (DEG REQ)</td>
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<tr>
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<tr>
<td>CORE REQ American History (060)</td>
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<td>CORE REQ Government/Political Science (070)</td>
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<tr>
<td>MATH 2318 Linear Algebra (3 credit hour version (DEG REQ))</td>
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<tr>
<td>MATH 2320 Differential Equations (DEG REQ)</td>
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<td>or MATH 3306 Differential Equations</td>
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<td><strong>Third Year</strong></td>
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<td>Fall</td>
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<tr>
<td>MATH 3350 Principles of Bio-Statistics</td>
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<td>MATH 3301 Number Theory</td>
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<td>MATH 3309 Algebraic Function</td>
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<td>MATH 3315 Mathematics &amp; Technology</td>
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<td>Upper-Level Computer Science Elective</td>
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<td>Spring</td>
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<tr>
<td>MATH 3310 Discrete Mathematics</td>
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<td>MATH 3311 Probability &amp; Statistics I</td>
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<td>MATH 3332 Linear Algebra</td>
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<td>MATH 3360 Numerical Analysis I</td>
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<td>MATH 4302 College Geometry</td>
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<td><strong>Fourth Year</strong></td>
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<td>Fall</td>
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<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>MATH 4304 Survey of Mathematical Ideas (and)</td>
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<tr>
<td>MATH 4304L Survey of Mathematical Ideas Lab</td>
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<td>MATH 4309 Advanced Analysis I</td>
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<td>Spring</td>
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<td>MATH 4332 Abstract Algebra</td>
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<td>Upper-Level Support Field Elective</td>
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<tr>
<td>Any Level Support Field Elective</td>
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</table>

Total Credit Hours 120

1. PHYS 2426 University Physics II is recommended. MATH 4302 may be taken in the summer.

2. Courses for the support field should be chosen form an academic area in which mathematics is applicable and must be selected in consultation with the program coordinator or department chair.

3. Lower Level Electives, Any Level Electives, Component Area Options, or Degree Requirements (DEG REQ) may consist of the FOS courses: MATH 2413, MATH 2414, MATH 2415, MATH 2318 or 2418, MATH 2320 or 2420, PHYS 2425 or lecture and lab, choose one from the following: ENGR 2304, COSC 1336 or 1436, COSC 1337 or 1437, COSC 2336 or 2436, COSC 2325 or 2425.

Bachelor Science - Mathematics Major with Minor in Secondary Education Program Requirements

Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan.

College of Education application for admission to program and faculty advisement is required prior to enrolling in secondary teacher certification preparation courses.*

Please note the following courses require a grade of ‘C’ or better: 12 credit hours of English, Calculus, approved Educational Psychology course, and 15 credit hours in the certification subject area.

This program is designed for students wanting to teach 7-12 grade Mathematics.

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
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<tr>
<td>Fall</td>
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<tr>
<td>ENGL 1301 Composition I (CORE REQ (010)</td>
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<td>MATH 2413 Calculus I (CORE REQ 020)</td>
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<tr>
<td>PHYS 2425 University Physics I (CORE REQ 030)</td>
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<tr>
<td>CORE REQ Creative Arts (050)</td>
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<tr>
<td>Spring</td>
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<tr>
<td>CORE REQ Life and Physical Science (030)</td>
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<td>Course Code</td>
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<tr>
<td>ENGL 1302</td>
<td>Composition II (CORE REQ) (010)</td>
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<tr>
<td>CORE REQ Social and Behavioral Sciences (080)</td>
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<tr>
<td>MATH 2414</td>
<td>Calculus II (DEG REQ)</td>
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**Second Year**

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<th>Term</th>
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<tr>
<td>Fall</td>
<td>CORE REQ English Literature (040)</td>
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<tr>
<td>HIST 1301</td>
<td>United States History I (CORE REQ (060))</td>
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<tr>
<td>GOVT 2305</td>
<td>Federal Government (CORE REQ (070))</td>
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<tr>
<td>PSYC 2308</td>
<td>Child Psychology (DEG REQ) or TECA 1354 or PSYC 3303</td>
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<tr>
<td>or MATH 2415</td>
<td>Calculus III (DEG REQ)</td>
<td>4</td>
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<tr>
<td>MATH 3306</td>
<td>Differential Equations or MATH 2320</td>
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<th>Term</th>
<th>Course Code</th>
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<th>Credit Hours</th>
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<tbody>
<tr>
<td>Spring</td>
<td>HIST 1302</td>
<td>United States History II (CORE REQ (060))</td>
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<td>GOVT 2306</td>
<td>Texas Government (CORE REQ (070))</td>
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**Third Year**

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<tr>
<th>Term</th>
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<td>MATH 3301</td>
<td>Number Theory</td>
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<td>MATH 3309</td>
<td>Algebraic Function</td>
<td>3</td>
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<tr>
<td>MATH 3315</td>
<td>Mathematics &amp; Technology</td>
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<tr>
<td>MATH 4304</td>
<td>Survey of Mathematical Ideas</td>
<td>3</td>
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<td>MATH 4304L</td>
<td>Survey of Mathematical Ideas Lab</td>
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<td>MATH 4309</td>
<td>Advanced Analysis I</td>
<td>3</td>
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<tr>
<td>MATH 3350</td>
<td>Principles of Bio-Statistics</td>
<td>3</td>
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<tr>
<td>Spring</td>
<td>ENGL 3309</td>
<td>Tech Writing &amp; Document Design</td>
<td>3</td>
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<tr>
<td>MATH 3311</td>
<td>Probability &amp; Statistics I</td>
<td>3</td>
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<tr>
<td>MATH 4332</td>
<td>Abstract Algebra</td>
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<td>MATH 3360</td>
<td>Numerical Analysis I</td>
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<td>MATH 3370</td>
<td>An Introduction to Linear Programming</td>
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<td>MATH 4302</td>
<td>College Geometry</td>
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**Fourth Year - Admission to Secondary Education Certification Required**

<table>
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<tr>
<th>Term</th>
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<tr>
<td>Fall</td>
<td>READ 3335</td>
<td>Content Area Reading</td>
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<td>EDUC 4331</td>
<td>Curriculum &amp; Instruction for Secondary Teachers</td>
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<tr>
<td>EDUC 4332</td>
<td>Classroom Management for Secondary Teachers</td>
<td>3</td>
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<tr>
<td>EDUC 4317</td>
<td>Assessment &amp; Interpretation for Secondary Teachers</td>
<td>3</td>
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<tr>
<td>EDUC 4337</td>
<td>Educating Secondary Exceptional Learners</td>
<td>3</td>
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<td>Spring</td>
<td>EDUC 4335</td>
<td>Capstone for Educators</td>
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<tr>
<td>EDUC 4691</td>
<td>Clinical Teaching</td>
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**Total Credit Hours**

120

1. PHYS 2426 University Physics II is recommended.
2. Students may speak with a Math Faculty advisor to have a substitution written for MATH 4305 which can be taken during the summer.

**Education Courses**

**EDUC 1100. Learning Frameworks. 1 Credit Hour.**
A study of the: research and theory in the psychology of learning, cognition, and motivation; factors that impact learning, and application of learning strategies. Theoretical models of strategic learning, cognition, and motivation serve as the conceptual basis for the introduction of college-level student academic strategies. Students use assessment instruments (e.g., learning inventories) to help them identify their own strengths and weaknesses as strategic learners. Students are ultimately expected to integrate and apply the learning skills discussed across their own academic programs and become effective and efficient learners. Students developing these skills should be able to continually draw from the theoretical models they have learned. (Cross-listed as PSYC 1300).

**EDUC 1200. Learning Frameworks. 2 Credit Hours.**
A study of the: research and theory in the psychology of learning, cognition, and motivation; factors that impact learning, and application of learning strategies. Theoretical models of strategic learning, cognition, and motivation serve as the conceptual basis for the introduction of college-level student academic strategies. Students use assessment instruments (e.g., learning inventories) to help them identify their own strengths and weaknesses as strategic learners. Students are ultimately expected to integrate and apply the learning skills discussed across their own academic programs and become effective and efficient learners. Students developing these skills should be able to continually draw from the theoretical models they have learned. (Cross-listed as PSYC 1300).

**EDUC 1300. Learning Frameworks. 3 Credit Hours.**
A study of the: research and theory in the psychology of learning, cognition, and motivation; factors that impact learning, and application of learning strategies. Theoretical models of strategic learning, cognition, and motivation serve as the conceptual basis for the introduction of college-level student academic strategies. Students use assessment instruments (e.g., learning inventories) to help them identify their own strengths and weaknesses as strategic learners. Students are ultimately expected to integrate and apply the learning skills discussed across their own academic programs and become effective and efficient learners. Students developing these skills should be able to continually draw from the theoretical models they have learned. (Cross-listed as PSYC 1300).
EDUC 1301. Introduction to the Teaching Profession. 3 Credit Hours.
An enriched, integrated pre-service course and content experience that provides active recruitment and institutional support of students interested in a teaching career, especially in high need fields. The course provides students with opportunities to participate in early field observations at all levels of P-12 schools with varied and diverse 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 for Educator Certification Pedagogy and Professional Responsibilities standards; and the course must include a minimum of 16 contact hours of field experience in P-12 classrooms.

EDUC 2301. Introduction to Special Populations. 3 Credit Hours.
(080) An enriched, integrated pre-service course and content experience that provides an overview of schooling and classrooms from the perspectives of language, gender, socioeconomic status, ethnic and academic diversity, and equity with an emphasis on factors that facilitate learning. The course provides students with opportunities to participate in early field observations of P-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 3300. World Regional Geography for Educators. 3 Credit Hours.
Examine practices for teaching World Regional Geography. Required for a Bachelor of Science degree in Interdisciplinary Studies and for teacher certification. Must be completed before students attempt the TExES, the teacher certification exam, and before student teaching.

EDUC 3310. Theories of Learning. 3 Credit Hours.
(WI) This course examines influential learning theories and the implications of these theories for educational practice. Survey of seminal theorists and their contributions to understanding how learning occurs and how learners develop and construct meaning to acquire knowledge and skills. This course should be taken in the first block of the teacher education program. Prerequisite(s): Admission to teacher education block 1.

EDUC 3315. Literacy Instruction for Bilingual Classroom. 3 Credit Hours.
Examine knowledge and skills required to teach limited English language learners, with an emphasis on program implementation, curriculum, materials, oral language, literacy development and assessment strategies. Spanish and English will be spoken in this class. Prerequisite(s): Passing scores on the TBLPT – Spanish (Bilingual Target Language Proficiency Test) – Spanish, EDUC 3325, EDUC 3320 and READ 3311.

EDUC 3320. Professional Development in Learner Centered Schools. 3 Credit Hours.
Examine students in learner centered schools. Study lesson planning, learning styles and strengths of diverse learners, learner-centered instructions, instructional strategies, lesson plans, TEKS educational equality, and the professional standards of educators. Technology lab and documentation of field experiences are required. Certification Fee - $150.

EDUC 3325. Fundamentals of Bilingual and English as a Second Language Education. 3 Credit Hours.
Examine history, philosophies, theoretical, and legal foundations regarding Bilingual/English as a Second Language education. Learn the knowledge and skills required to teach English Language Learners, with an emphasis on instructional strategies. Prerequisite(s): EDUC 3320.

EDUC 3330. Professional Development II: Effective Instruction. 3 Credit Hours.
Examine the relationship between the state-adopted curriculum, learner-centered proficiencies, and best practices. Study lesson cycles, models of learning, instruction, uses of technology, assessment, classroom management, micro-teaching and field experience. Classroom management lab and documentation of field experiences are required. Prerequisite(s): EDUC 3320 and admission to the Teacher Education Program.

EDUC 3340. Mathematics Instruction for Classroom Teachers. 3 Credit Hours.
Study for preservice educators to plan, organize, deliver, and evaluate developmentally appropriate educational strategies and instructional techniques in teaching mathematics to diverse learners. Design responsive instruction appropriate for all learners which reflects an understanding of relevant mathematics content, promotes active engagement, and is based on continuous and appropriate assessment.

EDUC 3350. Science Instruction for Classroom Teachers. 3 Credit Hours.
Study for preservice educators to plan, organize, deliver, and evaluate developmentally appropriate educational strategies and instructional techniques in teaching science to diverse learners. Design responsive instruction appropriate for all learners which reflects an understanding of relevant science content, promotes active engagement, and is based on continuous and appropriate assessment.

EDUC 3360. The Arts for Educators. 3 Credit Hours.
This methods course is concerned with providing experience for preservice educators to plan, organize, deliver, and evaluate developmentally appropriate educational strategies and instructional techniques in teaching the arts to diverse learners. The students design responsive instruction appropriate for all learners which reflects an understanding of relevant music, art and theater content, promotes active engagement, and is based on continuous and appropriate assessment.

EDUC 3370. Instructional Strategies. 3 Credit Hours.
This course is designed to develop advanced strategies to identify readiness for learning; and to understand when and how to adjust content, process, or product in order to differentiate responsive instruction effectively. This course should be taken in the second block of the teacher education program. Certification Fee - $150. Prerequisite(s): Completion of teacher education block 1 with a minimum 2.75 GPA.

EDUC 3420. Instructional Planning and Delivery. 4 Credit Hours.
This course addresses the lesson cycle, instructional models; use of technology to enhance instruction; resources to plan, deliver and assess instruction; the role of assessment in driving instruction; Texas Essential Knowledge and Skills (TEKS) and the curricula scope and sequence. This course should be taken in the first block of the teacher education program. Prerequisite(s): Admission to teacher education block 1.

EDUC 3430. The Learner and the Learning Environment. 4 Credit Hours.
This course introduces various classroom organizational strategies, offers preservice teachers ideas for effective classroom management, and develops an understanding of the value of collaborating within the school community. The course addresses the creation of safe and supportive learning environments that foster high levels of student engagement and maximize student learning. This course should be taken in the first block of the teacher education program. Prerequisite(s): Admission to teacher education block 1.
EDUC 4304. Early Childhood Environments Professional Development III. 3 Credit Hours.
Study all aspects of classroom management, including the physical environment and use of centers for diverse groups of early elementary students. Examine current issues related to early childhood education. Demonstrate developmentally appropriate effective teaching practices in field-based setting. Prerequisite(s): Admission to the Teacher Education Program, Application for Practicum, READ 3330, EDUC 3325, EDUC 3330, EDUC 3340 and EDUC 3350; Concurrent enrollment in READ 4304, READ 4305 and EDUC 4320. Field experience fee $75.

EDUC 4305. Language Concepts and Proficiencies in a Bilingual Classroom. 3 Credit Hours.
Examine curriculum requirements as applicable to bilingual education, language concepts and proficiencies needed for teaching language arts, math, science, and social studies in bilingual classrooms. Evaluate commercial and research-based programs in order to adapt materials for students with varying degrees of language and literacy proficiency. Field experiences required. Prerequisite(s): Passing scores on the BTLPT – Spanish (Bilingual Target Language Proficiency Test-Spanish), EDUC 3325, EDUC 3315, READ 3311 and READ 3335.

EDUC 4312. Literacy Development II. 3 Credit Hours.
(WI) A field-based course surveying characteristics of the transitional/ independent literacy learner, methods of instruction for writing, strategy building, comprehension, vocabulary, word identification, utilizing the Texas Essential Knowledge and Skills. Examines typical/typical reading development and strategies for assessing/addressing reading differences in individual learners. Explores structures and features of expository text including examination of supports and challenges within the text.

EDUC 4315. Elementary Curriculum, Assessment and Instruction. 3 Credit Hours.
Implement assessment-driven instruction and curricular design in interdisciplinary contexts. Apply knowledge of developmental stages, learner needs, and the stated expectations of TEKS in the core content areas to design, implement, and evaluate an interdisciplinary curriculum. Study effective teaching practices, problem based learning and technology applications. Pre-requisites EDUC 3320, EDUC 3330 and concurrent enrollment in EDUC 4304, READ 4304 and READ 4305.

EDUC 4317. Assessment & Interpretation for Secondary Teachers. 3 Credit Hours.
This course is for students seeking a secondary certification to examine technology driven design and implementation of data-driven instruction to include the implementation of effective assessments, student data collection, analysis, interpretation, and communication aligned to learning goals for a diverse student population. The objective of this course is for the secondary pre-service teachers to be able to demonstrate the ability to effectively collect, analyze and communicate student data for continuous teaching and learning for diverse students. Prerequisite(s): Admission into the Teacher Education Program. Field Experience required. Field Experience Fee: $25.

EDUC 4320. Integrated Social Studies Methods, EC-8. 3 Credit Hours.
This methods course is concerned with providing experience for preservice educators to plan, organize, deliver, and evaluate developmentally appropriate educational strategies and instructional techniques in teaching Social Studies through the integration of English Language Arts and Fine Arts. It correlates social studies content with the National Council of Social Studies Strands and disciplines and the Texas Essential Knowledge and Skills. This course should be taken in the third block of the teacher education program. Prerequisite(s): Prerequisite: Admission to teacher education program.

EDUC 4325. History for Educators. 3 Credit Hours.
This methods course is concerned with providing experience for pre-service educators to plan, organize, deliver, and evaluate developmentally appropriate educational strategies and instructional techniques in teaching US, Texas and world history to diverse learners. The students design responsive instruction appropriate for all learners which reflects an understanding of relevant history content, promotes active engagement, and is based on continuous and appropriate assessment.

EDUC 4330. Professional Development III. 3 Credit Hours.
Field-based and practicum experiences are required in school settings, where students plan units of instruction, examine various models of instruction, analyze classroom management strategies, and demonstrate competencies in effective teaching practices. Prerequisite(s): Admission to the Teacher Education Program, EDUC 3330 and READ 3335. Field experience fee - $75.

EDUC 4331. Curriculum & Instruction for Secondary Teachers. 3 Credit Hours.
The course will study lesson planning, lesson cycles, learning styles and strengths of diverse learners. Additionally, teacher candidates will explore learner-centered instruction and strategies, brain-based learning, cooperative learning, assessment, classroom management, integration of technology, and the state-adopted curriculum (TEKS). The teacher candidates will examine the relationship between the state-adopted curriculum, learner-centered proficiency, and best practices. Field experiences 25 hours are required as well as $25 field experience fee. Additionally, a fee of $150 is due for certification. Prerequisite(s): Admission to the Teacher Education Program.

EDUC 4332. Classroom Management for Secondary Teachers. 3 Credit Hours.
This course provides secondary educators with knowledge and skills to create safe, supportive, and respectful learning environments. Students will analyze classroom management strategies and examine various modes of instruction. An analysis of legal and ethical issues as they relate to the classroom are an important component of the course. Secondary students will have field-based experience based on in-school settings. Admittance into the Teacher Education Program. Prerequisite(s): Admission to the Teacher Education Program. Field Experience required. Field Experience Fee: $25.

EDUC 4335. Capstone for Educators. 3 Credit Hours.
Capstone is a culminating course designed for teacher candidates to synthesize their knowledge across the program through the development of artifacts that demonstrate effective integration of content understanding and pedagogical skills. The teacher candidates will analyze student learning and reflect on their teaching effectiveness in order to facilitate learning for all students. Prerequisite(s): Admission to the Teacher Education Program, successful completion of Content Certification Examination, and concurrent enrollment in Clinical Teaching (EDUC 4691).

EDUC 4337. Educating Secondary Exceptional Learners. 3 Credit Hours.
This course provides instruction in the historical, philosophical, and legal foundations of exceptional education as related to current issues and practices in educational settings. It comprises issues and trends that include transition – related instruction, postsecondary programs, and adaptability to and in secondary classrooms. Teacher candidates will develop an awareness of legal aspects of exceptional education as well as needs and services specific to students with specific needs in the secondary classroom. Prerequisite(s): Field experience required. Field experience fee $25.
EDUC 4340. Technology Application and Integration for Classroom Teachers. 3 Credit Hours.
Study for preservice educators to plan, organize, deliver, and evaluate instruction for diverse learners through the effective use and integration of current technology. Use of technology for ethical and professional communication with colleagues, community, and students. Prerequisite(s): Admission to Clinical Teaching; successful completion of designated content area Texas Examination of Educator Standards (TExES); concurrent enrollment in EDUC 4691 and EDUC 4335 or permission of department chair.

EDUC 4345. Mathematics & Science Methods in the Elementary Classroom. 3 Credit Hours.
This purpose of this course is to help preservice teachers discover how elementary children think and learn about mathematics. Examines the curriculum foundations and instructional methods for elementary mathematics. Building upon previous mathematical knowledge, and with a focus on supporting high quality mathematics education, this course provides resources and opportunities for experience with a number of instructional strategies and manipulatives. Science instruction focuses on the methods, materials and approaches for teaching science, including developmentally appropriate introductions to the physical, earth and life sciences. This course should be taken in the third block of the teacher education program. Prerequisite(s): Admission to teacher education program.

EDUC 4384. Classroom Teaching Internship. 3 Credit Hours.
Explore 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. May be repeated for credit. Prerequisite(s): Admission to the Teacher Education Program. Field experience fee - $75.

EDUC 4388. Education Problems. 1-3 Credit Hours.
Study of selected problems in education. Engage in independent research, reading and discussions under the personal direction of the instructor, topics may vary according to student need. Prerequisite(s): Junior or senior standing, admission to the Teacher Education Program and permission of Curriculum and Instruction Program Coordinator.

EDUC 4484. Field Experience. 4 Credit Hours.
Supervised field-based experiences in public school classrooms. Major emphasis is placed on the identification and exploration of instructional strategies, the learning environment, and professional practices designed to prepare for clinical teaching. This course should be taken in the third block of the teacher education program. Field experience fee: $75.00 Prerequisite(s): Admission to teacher education program.

EDUC 4691. Clinical Teaching. 6 Credit Hours.
Explore supervised clinical teaching in the public schools at the appropriate level (1-18). A demonstration of proficiency in the application of effective teaching practices and classroom management strategies is required. Prerequisite(s): Admission to Clinical Teaching and the successful completion of designated content area of the Texas Examination of Educator Standards (TExES); Concurrent enrollment in EDUC 4335 and EDUC 4340*, or permission of department chair. * 7-12 math students may take MATH 3315 in place of EDUC 4340. Field experience fee - $75.

EDUC 5090. Education Comprehensive Examination. 0 Credit Hours.
Study and take the education examination for Non-thesis students. Register for the comprehensive examination during final semester of graduate coursework, or upon permission of advisor. All comprehensive examinations will be written, but an oral component may also be required. A maximum of three attempts will be allowed. Thesis student do not take this examination.

EDUC 5198. Education Thesis. 1-6 Credit Hours.
Independent research course in which a student proposes and completes an original, quantitative research project. Scheduled when the student is ready to begin thesis. No credit awarded until proposal and thesis are complete. Prerequisite(s): Completion of all other coursework required for the degree and consent of the major professor or permission of department chair.

EDUC 5300. Foundations and History of Education. 3 Credit Hours.
Examine history of education in the United States through a study of the philosophical, historical, psychological and social foundations of curriculum. Emphasis is on the development of a philosophy of education and critical thinking about issues in education. Students must complete this course within the first twelve semester hour of graduate study.

EDUC 5301. Readings in Professional Development. 3 Credit Hours.
Examine current issues in the professional development of educators. Study 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. Cultural Diversity in Schools and Community. 3 Credit Hours.
Examine various dimensions of culture related to teaching, learning, and support services in the community. Study ethnicity, socio-economic status, language, gender, religion, age, and exceptionality.

EDUC 5304. Human Development. 3 Credit Hours.
Analyze human behavior with emphasis on the child, adolescent, and adult learner. Develop insight and social and cultural forces in the formation of personality, the self, and roles in group membership.

EDUC 5306. Adult Education. 3 Credit Hours.
Examine philosophy and concepts of adult education including the role of the adult educator, setting of objectives, integration of adult learning with career goals or changes and assessment of educational needs of adults.

EDUC 5311. Methods of Effective Teaching. 3 Credit Hours.
Study research on effective teaching practices with an emphasis on direct instruction. Learn mastery learning, assessment of learning and use of assessment to guide instruction. Apply technology and effective teaching practices to the design and delivery of instruction. Technology lab is required. Certification Fee - $150.

EDUC 5312. Language and Social Studies Seminar. 3 Credit Hours.
Learn to teach Social Studies through the application of the writing process, reading/writing connections, and children's literature. Prerequisite(s): 18 hours of professional education course work.

EDUC 5314. Creating and Managing Learning Environment. 3 Credit Hours.
Learn to create and maintain a positive learning environment. Study cultural dimensions of classroom management, motivating student achievement, fostering cooperation among students, reinforcing appropriate behavior, and ethics and law governing teacher-student relations. Apply teaching and classroom management practices in a clinical laboratory setting.
EDUC 5322. Teaching Mathematics and Science. 3 Credit Hours.
Study 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. 3 Credit Hours.
Study early childhood education curriculum and practices. Examine current trends in early childhood curriculum with an emphasis on the modifications needed to ensure the success of all young children. Prerequisite(s): 18 hours of professional educational course work.

EDUC 5338. Curriculum Design and Implementation. 3 Credit Hours.
Explore curriculum selection, design, implementation, and evaluation processes within the classroom and school district settings. Study factors that influence curriculum decision-making processes and a review of theories of curriculum development. Major emphasis on curriculum alignment and curriculum auditing.

EDUC 5340. Evidence Based Teaching. 3 Credit Hours.
In this course, participants will learn about various instructional strategies to enhance learning experiences in education. The class will cover appropriate methods and techniques from basic principles of learning and brain-based/whole-brain techniques. The course will also foster 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 5345. Advanced Instructional Strategies for Diverse Learners. 3 Credit Hours.
Study appropriate methods and techniques from basic principles of learning. Develop 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 and Interpretation for Education Leaders. 3 Credit Hours.
Examine 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 Programs. 3 Credit Hours.
Study 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.
Study 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.
Study theories and models of creativity. Emphasis will be given to identifying the creative potential of students in all classrooms. Examine and develop instructional processes which accommodate the needs of creative learners. Prerequisite(s): EDUC 5360.

EDUC 5364. Curriculum and Material Development For Gifted Learners. 3 Credit Hours.
Study a comparison of regular and gifted curricula with a focus on developing an interdisciplinary curriculum for gifted learners. Examine and evaluate existing materials and equipment which support instruction for the gifted in both regular and special programs. Emphasis will be on developing and evaluating teacher constructed materials. Prerequisite(s): EDUC 5360.

EDUC 5366. Instruction and Evaluation For Gifted Learners. 3 Credit Hours.
Analyze methods of determining specific learning styles and talents, with emphasis placed on implementing appropriate instruction for programs. Learn methods and tools of informal and formal evaluation and assessment. Prerequisite(s): EDUC 5360 and EDUC 5364.

EDUC 5369. Education Seminar. 1-3 Credit 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 5370. Techniques of Research. 3 Credit Hours.
Explore fundamental concepts and tools of research applied to psychological and educational problems. Study rationale of research, analysis of problems, library skills, sampling, appraisal instruments, statistical description and inference, writing the research report, and representative research designs.

EDUC 5384. Teaching Internship. 3 Credit Hours.
Gain field-based experience in classroom teaching. Interns must demonstrate proficiency in applying effective teaching practices and classroom management strategies in a school classroom. Prerequisite(s): admission to a teacher certification program; satisfactory performance in the professional development courses preceding the internship. May be repeated for credit. Field experience fee - $75 or Internship fee - $1500 (effective fall 2016).

EDUC 5385. Teaching Internship II. 3 Credit Hours.
Explore a 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(s): Admission to a teacher certification program at TAMUCT; satisfactory performance in the professional development courses preceding the internship; Second semester Prerequisite(s): EDUC 5384. Field experience fee - $75 or Internship fee - $1500 (effective fall 2016).

EDUC 5388. Special Education Problems. 1-6 Credit Hours.
Study of selected problems in special education. Engage in independent research, reading and discussions under the personal direction of the instructor; topics may vary according to student need. Open to graduate students who are capable of developing a problem independently. Prerequisite(s): Graduate major in Education.

EDUC 5389. Special Topics In Education. 3 Credit Hours.
Examine 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 course may be repeated for credit as topic changes. Prerequisite(s): Permission of instructor.

EDUC 5391. Gifted Education Practicum. 3 Credit Hours.
Supervise 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. Prerequisite(s): Successful completion of EDUC 5360, EDUC 5362, EDUC 5364 and EDUC 5366.

Mathematics Courses

MATH 1314. College Algebra. 3 Credit Hours.
(020) In-depth study and applications of polynomial, rational, radical, exponential and logarithmic functions, and systems of equations using matrices. Additional topics such as sequences, series, probability, and conics may be included.
MATH 1316. Plane Trigonometry. 3 Credit Hours.
(020) 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.

MATH 1324. Mathematics for Business & Social Sciences. 3 Credit Hours.
(020) The application of common algebraic functions, including polynomial, exponential, logarithmic, and rational, to problems in business, economics, and the social sciences are addressed. 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.

MATH 1325. Calculus for Business & Social Sciences. 3 Credit Hours.
(020) 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.

MATH 1332. Contemporary Mathematics. 3 Credit Hours.
(020) Intended for Non STEM (Science, Technology, Engineering, and Mathematics) majors. Topics include introductory treatments of sets and logic, financial mathematics, probability and statistics with appropriate applications. Number sense, proportional reasoning, estimation, technology, and communication should be embedded throughout the course. Additional topics may be covered.

MATH 1342. Elementary Statistical Methods. 3 Credit Hours.
(020) Collection, analysis, presentation and interpretation of data, and probability. Analysis includes descriptive statistics, correlation and regression, confidence intervals and hypothesis testing. Use of appropriate technology is recommended.

MATH 1350. Mathematics for Teachers I. 3 Credit Hours.
(020) This course is intended to build or reinforce a foundation in fundamental mathematics concepts and skills. It includes the conceptual development of the following: sets, functions, number theory, number system, and properties of the various number systems with an emphasis on problem solving and critical thinking.

MATH 1351. Mathematics for Teachers II. 3 Credit Hours.
(020) This course is intended to build or reinforce a foundation in fundamental mathematics concepts and skills. It includes the concepts of geometry, measurement, probability, and statistics with an emphasis on problem solving and critical thinking.

MATH 1414. College Algebra. 4 Credit Hours.
(020) In-depth study and applications of polynomial, rational, radical, exponential and logarithmic functions, and systems of equations using matrices. Additional topics such as sequences, series, probability, and conics may be included.

MATH 1442. Elementary Statistical Methods. 4 Credit Hours.
(020) Collection, analysis, presentation and interpretation of data, and probability. Analysis includes descriptive statistics, correlation and regression, confidence intervals and hypothesis testing. Use of appropriate technology is recommended.

MATH 2305. Discrete Mathematics. 3 Credit Hours.
(020) A course designed to prepare math, computer science, and engineering majors for a background in abstraction, notation, and critical thinking for the mathematics most directly related to computer science. Topics include: logic, relations, functions, basic set theory, countability and counting arguments, proof techniques, mathematical induction, combinatorics, discrete probability, recursion, sequence and recurrence, elementary number theory, graph theory, and mathematical proof techniques.

MATH 2312. Pre-Calculus Math. 3 Credit Hours.
(020) In-depth combined study of algebra, trigonometry, and other topics for calculus readiness.

MATH 2313. Calculus I. 3 Credit Hours.
(020) 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 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.

MATH 2314. Calculus II. 3 Credit Hours.
(020) Differentiation and integration of transcendental functions; parametric equations and polar coordinates; techniques of integration; sequences and series; improper integrals.

MATH 2315. Calculus III (3 credit hour version). 3 Credit Hours.
(020) Advanced topics in calculus, including vectors and vector-valued functions, partial differentiation, Lagrange multipliers, multiple integrals, and Jacobians; application of the line integral, including Green's Theorem, the Divergence Theorem, and Stokes' Theorem. Prerequisite(s): MATH 2414.

MATH 2318. Linear Algebra (3 credit hour version). 3 Credit Hours.
(020) 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; quadratic forms; eigenvalues and eigenvector; and applications in science and engineering. Prerequisite(s): MATH 2414.

MATH 2320. Differential Equations. 3 Credit Hours.
(020) Ordinary differential equations, including linear equations, systems of equations, equations with variable coefficients, existence and uniqueness of solutions, series solutions, singular points, transform methods, and boundary value problems; application of differential equations to real-world problems.

MATH 2412. Pre-Calculus Math. 4 Credit Hours.
(020) In-depth combined study of algebra, trigonometry, and other topics for calculus readiness.

MATH 2413. Calculus I. 4 Credit Hours.
(020) 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.

MATH 2414. Calculus II. 4 Credit Hours.
(020) Differentiation and integration of transcendental functions; parametric equations and polar coordinates; techniques of integration; sequences and series; improper integrals.
MATH 2415. Calculus III. 4 Credit Hours.
(020) Advanced topics in calculus, including vectors and vector-valued functions, partial differentiation, Lagrange multipliers, multiple integrals, and Jacobians; application of the line integral, including Green's Theorem, the Divergence Theorem, and Stokes’ Theorem.

MATH 2418. Linear Algebra (4 credit hour version). 4 Credit Hours.
(020) 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; quadratic forms; eigenvalues and eigenvector; and applications in science and engineering. Prerequisite(s): MATH 2414.

MATH 2420. Differential Equations (4 credit hour version). 4 Credit Hours.
(020) Ordinary differential equations, including linear equations, systems of equations, equations with variable coefficients, existence and uniqueness of solutions, series solutions, singular points, transform methods, and boundary value problems; application of differential equations to real-world problems. Prerequisite(s): MATH 2414 must be the 4 credit hour version.

MATH 3300. Principles of Statistics. 3 Credit Hours.
Data collection and analysis, elementary probability, discrete and continuous distributions, regression, correlation, estimation, and nonparametric methods. This course cannot be counted on a degree program for a mathematics major. Credit cannot be awarded for both MATH 3300 and MATH 3450. Prerequisite(s): MATH 1314.

MATH 3301. Number Theory. 3 Credit Hours.
The study of congruence relations, rational integers, diophantine equations, quadratic reciprocity law, linear forms, integral domains, and related topics. Prerequisite(s): 6 hours of MATH including MATH 2413.

MATH 3302. Principles of Geometry. 3 Credit Hours.
Euclidean geometry topics including logic, properties of parallel lines, triangles, quadrilaterals, circles, measurement, similarity, proportionality, and transformations. Technology will be incorporated where appropriate. Credit for both MATH 3302 and MATH 4302 will not be awarded. Prerequisite(s): MATH 2413.

MATH 3303. Concepts of Elementary Math I. 3 Credit Hours.
Problem solving, sets, functions, logic, elementary number theory, concepts of properties of whole numbers, rational numbers, integers, and real numbers. Designed for those planning to teach in elementary school. Prerequisite(s): MATH 1314 and Junior standing.

MATH 3305. Concepts of Elementary Math II. 3 Credit Hours.
Basic concepts in algebra, geometry, calculators and computers, metric system and measurement, and probability and statistics. Meets basic probability requirement for math majors, certifying teachers, and interdisciplinary studies. Prerequisite(s): MATH 3303.

MATH 3306. Differential Equations. 3 Credit 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(s): MATH 2414.

MATH 3309. Algebraic Function. 3 Credit Hours.
Survey of elements from Algebra, Trigonometry, Geometry, Probability and Statistics, Finite Mathematics, and Calculus. The class places a strong emphasis on real-world applications and interpretation. Technology will be incorporated where appropriate.

MATH 3310. Discrete Mathematics. 3 Credit Hours.
Introduces students to the techniques and tools of reasoning, decision making, and combinatorial problem solving. Topics include sets and logic, combinations, probability, relations and functions, Boolean properties, and graph theory. Prerequisite(s): MATH 1314 or MATH 3309.

MATH 3311. Probability & Statistics I. 3 Credit Hours.
This course contains the fundamentals of probability theory and the basics of statistics. Topics include probability axioms, sampling distributions, descriptive statistics, finite random variables, infinite discrete random variables, continuous random variables, and the Central Limit Theorem. Prerequisite(s): MATH 2414 and MATH 3305 or an elementary probability course.

MATH 3315. Mathematics & Technology. 3 Credit Hours.
Use of current technologies related to creating interactive presentations/documents for math as well as use of current technologies related to mathematical analysis and state certification exams.

MATH 3332. Linear Algebra. 3 Credit Hours.
A study of the theory of real vector spaces and linear transformations. Topics include vector spaces, inner product, norm, distance, subspaces, spanning sets, linear dependence and independence, bases, dimension, linear systems, coordinates, linear transformations, kernel, image, isomorphisms, inverse linear transformations, matrix representations of linear transformations, similarity, direct sums, and canonical forms. Prerequisite(s): MATH 2414 MATH 3310 or instructor's permission.

MATH 3350. Principles of Bio-Statistics. 3 Credit Hours.
An introduction to statistical methods that are applied in biology and agriculture. Use of technology and hands-on spreadsheet assignments are required in this course. Prerequisite(s): MATH 2413.

MATH 3356. Numerical Analysis I. 3 Credit Hours.
An introduction to numerical analysis. Topics are being 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. Prerequisite(s): MATH 2414 and 3 hours of COSC.

MATH 3370. An Introduction to Linear Programming. 3 Credit Hours.
The topics will include Convexity, Extreme Points, Linear Programming for efficiency of mixtures, transportation, and other economic models. Basic analysis of the simplex method and duality will be used to solve such problems and to determine the long-term usefulness of models.

MATH 3375. An introduction to Partial Differential Equations. 3 Credit Hours.
The topics will include advanced vector calculus, the heat and wave equations, separation of variables, Fourier Transforms, convolution, and geometric analysis. Prerequisite(s): MATH 2414 and PHYS 2425.

MATH 3433. Calculus III. 4 Credit 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’ Theorem. Use of computer technology and laboratory assignments will be required in this course. Prerequisite(s): MATH 2414.
MATH 4302. College Geometry. 3 Credit Hours.
Euclidean geometry topics including logic, properties of parallel lines, triangles, quadrilaterals, circles, measurement, similarity, proportionality, and transformations. Additional topics include projective and non-Euclidean geometry. Technology is incorporated where appropriate. Substitutes for MATH 3302 for 4-8 certifying students. Prerequisite(s): MATH 2413.

MATH 4304. Survey of Mathematical Ideas. 3 Credit Hours.
This course is designed to bring together and supplement the technical material of other mathematics courses to communicate mathematics effectively. Topics in algebra, trigonometry, geometry, statistics, and discrete mathematics will be explored. Technology will be used where appropriate. Prerequisite(s): MATH 2413 and MATH 3302 or MATH 4302 or concurrent registration.

MATH 4304L. Survey of Mathematical Ideas Lab. 1 Credit Hour.
This lab is required for all math majors and must be taken with MATH 4304. This lab addresses and prepares students for content on the state certification exam and will reflect current state requirements for the mathematics state examinations for grade levels 7-12. All other majors requiring MATH 4304 will continue to take base course, but will not take this lab. Prerequisites: MATH 2413 and MATH 3302 or MATH 4302 or concurrent registration and Senior Standing.

MATH 4305. Concepts of Elem Math III. 3 Credit Hours.
This course is designed to develop and extend the mathematical content knowledge of prospective middle school teachers. Topics include 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 is being integrated into the curriculum where appropriate. Prerequisite(s): MATH 3305 for EC-6 and 4-8 Mathematics majors; MATH 2413 for all other students.

MATH 4309. Advanced Analysis I. 3 Credit Hours.
(WI) 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 integration. Prerequisite(s): MATH 2414.

MATH 4311. Probability & Statistics II. 3 Credit Hours.
Continuation of MATH 3311 with focus on statistical inference. Topics include the Central Limit Theorem, sampling distributions, confidence intervals, hypothesis testing, inferences based on two samples, and an introduction to ANOVA. Prerequisite(s): MATH 3311.

MATH 4320. Mathematical Modeling. 3 Credit Hours.
An advanced introduction to models related to applied sciences. Topics include applications of linear programming, scheduling, graph theory, and game theory. Prerequisite(s): MATH 2414 and 6 hours of advanced mathematics or pre-calculus.

MATH 4332. Abstract Algebra. 3 Credit Hours.
(WI) An introduction to abstract algebraic structures, including groups, rings, ideals, polynomial rings, and applications. Prerequisite(s): MATH 3332.

MATH 4380. Undergraduate Research Project. 1-3 Credit 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. Prerequisite(s): Mathematics major, senior standing, and 24 semester hours of MATH courses and permission of department chair.

MATH 4389. Special Topics in Math. 3 Credit Hours.
Topics are being selected from areas of mathematics suitable for upper level study. This course may be repeated once with permission of department chair, as topics change. Prerequisite(s): MATH 2414 and 6 hours of advanced MATH.

MATH 4488. Mathematic Problems. 1-4 Credit Hours.
Special problems in mathematics. Not covered by any course in the curriculum. Work may be either theory or laboratory. May be repeated with permission of department chair for additional credit when fewer than four credits have been earned. Prerequisite(s): Permission of department chair.

MATH 5090. Comprehensive Examination. 0 Credit Hours.
Non-thesis students should register for the comprehensive examination during their final semester of graduate coursework, or upon permission of advisor. All comprehensive examinations will be written, but an oral component may also be required. A maximum of three attempts will be allowed. Thesis student do not take this examination.

MATH 5198. Thesis. 1-6 Credit 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.

MATH 5301. Nonparametric Statistics. 3 Credit Hours.
Introduction to nonparametric statistics. Topics will include hypothesis testing, contingency tables, rank tests, and goodness-of-fit tests. Prerequisite(s): MATH 3300 or MATH 3311 or MATH 3450 or MATH 5305.

MATH 5305. Probability & Statistics. 3 Credit Hours.
Topics will be selected from: distributions and stochastic processes, parametric and nonparametric statistics, and time series analysis. Prerequisite(s): MATH 3311.

MATH 5308. Abstract Algebra. 3 Credit Hours.
Topics will be selected from: groups, homomorphism, isomorphism, direct products and sums, invariant properties, rings, and fields. Prerequisite(s): MATH 4332.

MATH 5311. Operations Research. 3 Credit Hours.
This course examines the theoretical support and applications of the simplex algorithm for linear programming and for dynamic programming. Transportation and scheduling problems are among the applications to be emphasized. Prerequisite(s): MATH 3332.

MATH 5312. Design of Experiments. 3 Credit Hours.
Students will learn about planning and conducting an experiment. Data analysis using appropriate software is covered. Prerequisite(s): MATH 5305 or permission of department chair.
MATH 5315. Operations Research II. 3 Credit Hours.
Selected topics in Operations Research, chosen from among the following: Search, Selection and Optimization Techniques; System Modeling; Network Analysis; Inventory and Production Modeling; Sequencing and Scheduling; Decision Theory; Queuing Theory; Simulation and Monte Carlo Techniques; and Markov Chains.

MATH 5320. Real Analysis. 3 Credit Hours.
Topics will be chosen from: sets and operators; cardinal numbers and ordinal types; metric spaces and Lebesgue measure; metric properties of sets; differentiation and integration. Prerequisite(s): MATH 4309.

MATH 5330. Mathematical Modeling. 3 Credit 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. Prerequisite(s): MATH 3306 and MATH 3332.

MATH 5335. Statistics II. 3 Credit Hours.
This is an advanced course in probability distributions, joining distributions, covariance and problems related to the actuary field. Prerequisite(s): MATH 5305.

MATH 5350. Applied Linear Algebra. 3 Credit 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(s): MATH 3332.

MATH 5360. Numerical Analysis. 3 Credit Hours.
An advanced study of numerical analysis. Topics will be selected from linear systems, approximation theory, numerical differential and integral equations, integration theory. Prerequisite(s): MATH 4309 and MATH 3360 or 6 hours of COSC.

MATH 5375. Statistical Reasoning and Probability. 3 Credit Hours.
Topics in applied statistics including ANOVA, experimental design, single and multiple linear regression, hypothesis testing of linear models, forecast errors and confidence intervals. Prerequisite(s): MATH 3311 or equivalent.

MATH 5376. Topics in Secondary Math. 3 Credit Hours.
This course applies the standards of the National Council of Teachers of Mathematics to the curriculum of secondary mathematics. It explores techniques to implement the standards through the use of manipulatives, graphing handhelds, and computer technology. Prerequisite(s): 24 hours of MATH, including MATH 2413.

MATH 5378. Technology-Aided Mathematics. 3 Credit 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(s): 24 hours of MATH, including MATH 120.

MATH 5379. Topics in Mathematics Theory. 3 Credit 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(s): Permission of department chair.

MATH 5380. Selected Topics in Mathematics. 3 Credit 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(s): Permission of department chair.

MATH 5381. Research Analysis. 1 Credit Hour.
An overview of the components of research in the main areas of mathematics. These areas will include pure mathematics and statics, applied mathematics and statistics, and mathematics education. The course will culminate with a study of what is a proper literary review and how to submit an article for publication. Prerequisite(s): Graduate standing in the mathematics department or permission of department chair.

MATH 5389. Advanced Special Problems. 1-3 Credit Hours.
Special problems in mathematics. Work may be either theory or laboratory. May be repeated with permission of the department chair for additional credit when fewer than four credits have been earned. Prerequisite(s): Permission of department chair.

Reading Courses
READ 3301. Introduction to Children's Literature. 3 Credit Hours.
Study literature for children focusing on the use of classic and contemporary texts to promote interest, motivation, and critical reading skills for self-selected reading in the elementary student. Learn to use texts to emphasize literary genre, text structures, and literary devices as tools for making connections and meaning. Prerequisite(s): Required core ENGL classes for degree. Credit will not be granted for READ 3301 and ENGL 3350.

READ 3310. Foundations of Literacy. 3 Credit Hours.
This course provides an overview of foundational concepts, principles, and best practices related to the science of teaching reading. Includes a survey of the cognitive, socio-cultural, linguistic, and motivational influences on literacy and language development. Presents the key scientifically-based reading research foundations needed to understand how reading develops from early childhood through adolescence. Prerequisite(s): Admission to teacher education block 1.

READ 3311. Literacy Development I. 3 Credit Hours.
This course addresses the theory and practice of teaching early reading. Takes into consideration theories of learning, understandings of students and their needs, and the backgrounds and interests of individual students. Study characteristics of typical and atypical reading development in the emergent/early learner, explore materials, procedures, assessments and instructional methods. Prerequisite(s): Completion of teacher education block 1 with a minimum 2.75 GPA.

READ 3320. Fundamentals of Teaching Reading. 3 Credit Hours.
This course focuses on research-based competencies essential for effective literacy instruction. Surveys characteristics of normal reading development in the elementary through middle school learner; explores materials, procedures, assessment and instructional methods considered effective in teaching oral language, writing, strategy building for comprehension, vocabulary, and word identification.
READ 3330. Reading II: Assessment, Instruction and Reader Development. 3 Credit Hours.
(WI) Study characteristics of the transitional and fluent literacy learner, methods of assessment and instruction for strategy building, comprehension, vocabulary, word identification, and TEKS/TAKS. Examine normal reading development, reading difficulties, strategies for assessing/addressing reading differences including diverse learner reading processes and development of literacy in English or ELL. Prerequisite(s): READ 3311 and Admission to the Teacher Education Program. Concurrent enrollment in EDUC 3330.

READ 3335. Content Area Reading. 3 Credit Hours.
(WI) Examine factors that influence learning from content text and study specific instructional strategies which promote comprehension, vocabulary development, effective study strategies, and test-taking skills. Study ways to modify text for diverse learners and the principles of research-based reading instruction. Must be admitted to the Teacher Ed Program.

READ 4304. Reading and Writing Across the Curriculum. 3 Credit Hours.
(WI) Study theory and instructional strategies for teaching the writing process in elementary and middle schools. Learn stages of the writing process, issues at the different grade levels, teaching with mini-lessons, early literacy, spelling, handwriting, developing listening skills, process writing, and the use of children's literature to teach writing. Prerequisite(s): READ 3330 and EDUC 3330, and concurrent enrollment in READ 4305 and EDUC 4304 or EDUC 4330.

READ 4305. Implement Classroom Reading Instruction. 3 Credit Hours.
Study state and national reading initiatives, approaches to teaching reading, procedures for organizing the elementary and middle school classrooms for reading instruction, research on effective reading-writing instruction, and roles of school personnel and parents in the school reading program. Prerequisite(s): READ 3330 and EDUC 3330, and concurrent enrollment in READ 4304 and EDUC 4304 or EDUC 4330.

READ 4312. Literacy Development II. 3 Credit Hours.
(WI) A field-based course surveying characteristics of the transitional/ independent literacy learner, methods of instruction for writing, strategy building, comprehension, vocabulary, word identification, utilizing the Texas Essential Knowledge and Skills. Examines typical/atypical reading development and strategies for assessing/addressing reading differences in individual learners. Explores structures and features of expository text including examination of supports and challenges within the text. Prerequisite(s): Admission to teacher education program.

READ 4313. Analysis and Response. 3 Credit Hours.
(WI) This course examines the foundational concepts, principles and best practices relating to assessment, utilizing a variety of evaluation and assessment tools. Students will analyze assessment data related to literacy development in order to plan appropriate instruction for typical/atypical learners. In-depth analyses are prepared to communicate student literacy outcomes to various audiences. Prerequisite(s): Admission to teacher education program.

READ 5370. Literacy Development. 3 Credit Hours.
Analyze models of the reading and writing processes. Emphasis on characteristics of emergent, early, transitional and fluent literacy instructional strategies in reading and writing, phonics instruction and strategies for teaching English language learners, and the essential knowledge and skills in the language arts curriculum. Prerequisite(s): admission to the teacher certification program.

READ 5371. Advanced Strategy for Literacy Development. 3 Credit Hours.
Study research in literacy development from early childhood through adulthood. Learn to develop research-based literacy programs from early childhood through adulthood, apply informal diagnostic and remedial procedures for English language learners, elementary, secondary and adult readers, and survey print and non-print materials, including textbooks, trade books and computer software. Prerequisite(s): admission to the teacher certification program.

READ 5372. Language Arts. 3 Credit Hours.
Examine research and strategies for implementing the reading/writing process in classrooms. Explore integrated curriculum, the use of children's literature, classroom management and organization, evaluation, working with diverse learners, and developing support networks. Prerequisite(s): READ 5373 or 9 hours of undergraduate READ courses or permission of department chair.

READ 5373. Foundations of Reading. 3 Credit Hours.
Examine theoretical models of the reading process, historical perspectives on reading instruction, and language learning. Develop an understanding of the construction of reading theory and its relationship to instructional practices. Prerequisite(s): Elementary, secondary, or all-level certification or permission of department chair.

READ 5374. Reading Resources and Materials. 3 Credit Hours.
Study print and non-print materials including content-area textbooks, trade books, and computer software. Evaluate materials and application of reading principles to instruction in content areas. Prerequisite(s): READ 5373 or 9 hours of undergraduate READ courses or permission of department chair.

READ 5375. Reading Research and Assessment. 3 Credit Hours.
Examine methods and techniques employed in reading research and assessment. Review research and the development, implementation, and dissemination of classroom research. Explore the application of appropriate diagnostic and correctional procedures for elementary, secondary, and adult learners having difficulty reading. Prerequisite(s): READ 5373 or 9 hours of undergraduate READ courses or permission of department chair.

READ 5376. Organization and Administration of Reading Programs. 3 Credit Hours.
Study state laws, trends and issues related to the administration of reading programs. Examine instructional issues and reading programs for pre-K through adult learners, censorship issues, textbook/test adoption procedures, roles and responsibilities in the reading program, staff development, and change strategies. Prerequisite(s): READ 5373 or 9 hours of undergraduate READ courses or permission of department chair. Certification Fee - $150.

READ 5388. Reading Problems. 1-3 Credit Hours.
Study of selected problems in reading. Engage in independent research, reading and discussions under the personal direction of the instructor, topics may vary according to student need. Prerequisite(s): Permission of department chair.

READ 5391. Reading Practicum. 3 Credit Hours.
Apply knowledge gained in previous Reading Specialist certification courses. Practicum candidates will be directly involved in providing 180 clock hours of reading services to students in a local public or private school setting, and will document expertise and experience in all four Standards. Prerequisite(s): READ 5373, READ 5374, READ 5375, READ 5376 and ENGL 5321; two years of creditable classroom teaching experience. Field experience fee - $75.
B.S. Mechanical Engineering Technology

OVERVIEW

Mechanical engineering technology focuses on the applied aspects of science and engineering to prepare graduates for practice in product improvement, manufacturing, engineering operation, sales, production, and implementation of mechanical systems. The goal of the Mechanical Engineering Technology program is to prepare well educated, highly skilled, and socially and professionally responsible engineering technologists from a diverse population of students to create productive and rewarding careers.

On completion of a Bachelor of Science degree in Mechanical Engineering Technology, our students will be able to:

a) Engage in applications-oriented design, manufacturing, and management of mechanical systems, including all technical and economic factors influencing these systems.

b) Use appropriate theory, mathematics, and computational technology to analyze and solve applied engineering problems.

c) Communicate and function effectively as an individual and as a team member in a professional environment.

d) Pursue lifelong learning and continuous improvement of their knowledge and skills in diverse industries with the highest professional and ethical standards.

Some specific employment opportunities would be: Engineer Technical Staff, Engineering Technologist, Mechanical Designer, Senior Designer, Senior Process Analyst, CAD Designer (Computer Aided Design Designer), Mechanical Designer/Wind-Chill Administrator, Engineering Tech, Tooling Engineering Tech.

NOTE: This program is not designed to prepare students for a certification such as Professional Engineer.

Program Level Student Learning Outcomes

The student will be able to:

1. Identify, analyze, and solve broadly-defined engineering technology problems.

2. Apply the knowledge, techniques, skills, and modern tools of the discipline.

3. Adapt to emerging applications of mathematics, science, engineering, and technology.

4. Design, develop, implement, operate, and maintain mechanical systems.

5. Improve processes by conducting, analyzing, and interpreting experiments using standard tests and measurements.

6. Apply written, oral, and graphical communication in both technical and non-technical environments.

7. Collaborate with others as a member or leader in an engineering team.

8. Understand and commit to professional and ethical responsibilities including a respect for diversity.

9. Commit to quality and continuous improvement by engaging in lifelong learning.

10. Recognize the impact of engineering technology solutions in a societal and global context.

Bachelor of Science - Mechanical Engineering Technology Program Requirements

Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan.

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<tr>
<td>ENGT 3306</td>
<td>Engineering Ethics</td>
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ENGT 3310. Applied Thermodynamics. 3 Credit Hours.
Introduction to metal and non-metallic manufacturing processes including casting, forging, rolling, extrusion, sheet metal forming, cutting tools turning and milling operations, abrasive machining, welding and joining powder compaction, molding, forming of plastics, and surface treatments. Prerequisite(s): ENGT 3415 (Co-requisite), CTC ENGR 2302 or equivalent.

ENGT 3305. Computer Aided Problem Solving. 3 Credit Hours.
This course introduces concepts for solving problems numerically using computers. Students will learn to solve engineering problems using spreadsheet methods, mathematical programs, and basic programming. Prerequisite(s): CTC MATH 2314 or equivalent.

ENGT 3306. Engineering Ethics. 3 Credit Hours.
This course discusses the ethical considerations and value judgments related to the design, manufacturing, and management of mechanical systems and engineering technology decisions. Students will focus on engineering codes of ethics, safety, and environmental responsibility.

ENGT 3310. Applied Thermodynamics. 3 Credit Hours.
This course introduces the theory and application of the laws of thermodynamics in engineering technology. Application of theory will focus on heat engines, heat pumps, refrigeration cycles, and power cycles commonly used in mechanical systems. Prerequisite(s): CTC CHEM 1411 or equivalent; CTC PHYS 2425 or equivalent.

ENGT 3311. Fluid Mechanics. 3 Credit Hours.
An introduction to fluid properties, fluid statics and dynamics; conservation of energy and momentum; and incompressible, laminar, viscous, and turbulent flow. Students will learn various problem solving techniques including similitude and dimensional analysis. Prerequisite(s): CTC ENGR 2302 or equivalent.

ENGT 3312. Heat Transfer. 3 Credit Hours.
The theory and application of heat transfer in engineering applications will be studied. Topics include steady and unsteady conduction in one- and two-dimensions, forced convection, internal and external flows, heat exchangers, radiation, and elements of thermal system design. Prerequisite(s): ENGT 3310, ENGT3311. Corequisite: ENGT 3213.

ENGT 3320. Quality Control Technology. 3 Credit Hours.
Quality Control This course covers the statistical analysis of data to establish quality control systems for manufacturing facilities. Prerequisite(s): ENGT 3302.

ENGT 3315. Material Science. 4 Credit Hours.
Study of the structure and properties of metallic and nonmetallic materials. This course covers material microstructure; phase diagrams; thermal, optical, electrical properties; testing and failure analysis; and corrosion. Prerequisite(s): CTC ENGR 2332 or equivalent.

ENGT 4307. Engineering Economics. 3 Credit Hours.
This course emphasizes the systematic evaluation of the costs and benefits associated with proposed technical projects. The student will be exposed to the concepts of the time value of money and the methods of discounted cash flow. Students are prepared to make decisions regarding money as capital within a technological or engineering environment. Prerequisite(s): ENGT 3306.

ENGT 4325. Senior Design A. 3 Credit Hours.
Students will complete a design process starting with topic research through conceptualization and generation of final design and documents. The design process begun in this course will be further developed and implemented in Senior Design B. Prerequisite(s): Senior classification.
ENGT 4326. Senior Design B. 3 Credit Hours.
This course is the final formulation, construction, and fabrication of a senior design project started in Senior Design A. Students will analyze results as well as prepare and submit design documents including a project report. Prerequisite(s): ENGT 4325.

ENGT 4421. Solid Modeling. 4 Credit Hours.
A study of the development and application of solid models of components and assemblies. The course covers the use of solid models in problems related to component design, stress analysis, fluid flow, heat transfer, machine dynamics, and assembly interference. Students will produce engineering drawings, visual representations, and data files for machining and rapid prototyping. Prerequisite(s): ENGT 3302.

ENGT 4422. Electrical Power and Controls. 4 Credit Hours.
Fundamentals of electrical and electronic power, controls, and instrumentation for Mechanical Engineering Technology students. This course covers the electric machines and control, Sensors and actuators, interfacing to PLC and PC, Feedback control theory and implementation, and automated data collection. Prerequisite(s): CTC MATH 2415 or equivalent.

B.S. Political Science

OVERVIEW

As one of the liberal arts and a social science in its own right, political science critically examines the consequences of our values and behavior for local, national, and international politics. When you choose to pursue the Bachelor of Science in Political Science, you will experience a curriculum that delves deeply into political life, revealing how politics really works, examining the unsolved mysteries of the discipline, and evaluating how our values shape the choices we make. Through the development of reading, research, writing, and critical thinking skills, we prepare students for a wide range of careers requiring these skills, as well as education, public service, and graduate study. We impart the knowledge required for effective leadership roles in your chosen profession.

Program Level Student Learning Outcomes

The student will be able to:

1. Understand the definitions, concepts, and theories of political science.
2. Use electronic databases for research and software to conduct formal or statistical political analysis.
3. Demonstrate appropriate style and grammar and develop the appropriate research skills.
4. Demonstrate advanced knowledge in one of the major areas of political science: American politics, international/comparative politics, or political theory.

Bachelor of Science - Political Science Major Program Requirements

Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan.

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<td>POLI 3302 Elections and Political Parties or POLI 3303 Comparative State and Local Government</td>
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<td>or POLI 3307 Public Administration or POLI 4302 Constitutional Law II</td>
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<td>or POLI 3308 International Politics</td>
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Bachelor Science - Political Science Major
With Minor in Secondary Education Social Studies Education

Program Requirements

Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan.

College of Education application for admission to program and faculty advisement is required prior to enrolling in secondary teacher certification preparation courses.*

Please note the following courses require a grade of 'C' or better: 12 credit hours of English, College Algebra, approved Educational Psychology course, and 15 credit hours in the certification subject area.

This program is designed for students wanting to teach 7-12 grade Social Studies.

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<td>HIST 4381</td>
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1. Lower Level Electives, Any Level Electives, Component Area Options, or Degree Requirements (DEG REQ) may consist of the FOS courses: GOVT 2304, GOVT 2305, GOVT 2306, MATH 1342.
EDUC 1100. Learning Frameworks. 1 Credit Hour.
A study of the: research and theory in the psychology of learning, cognition, and motivation; factors that impact learning, and application of learning strategies. Theoretical models of strategic learning, cognition, and motivation serve as the conceptual basis for the introduction of college-level student academic strategies. Students use assessment instruments (e.g., learning inventories) to help them identify their own strengths and weaknesses as strategic learners. Students are ultimately expected to integrate and apply the learning skills discussed across their own academic programs and become effective and efficient learners. Students developing these skills should be able to continually draw from the theoretical models they have learned. (Cross-listed as PSYC 1300).

EDUC 1200. Learning Frameworks. 2 Credit Hours.
A study of the: research and theory in the psychology of learning, cognition, and motivation; factors that impact learning, and application of learning strategies. Theoretical models of strategic learning, cognition, and motivation serve as the conceptual basis for the introduction of college-level student academic strategies. Students use assessment instruments (e.g., learning inventories) to help them identify their own strengths and weaknesses as strategic learners. Students are ultimately expected to integrate and apply the learning skills discussed across their own academic programs and become effective and efficient learners. Students developing these skills should be able to continually draw from the theoretical models they have learned. (Cross-listed as PSYC 1300).

EDUC 1300. Learning Frameworks. 3 Credit Hours.
A study of the: research and theory in the psychology of learning, cognition, and motivation; factors that impact learning, and application of learning strategies. Theoretical models of strategic learning, cognition, and motivation serve as the conceptual basis for the introduction of college-level student academic strategies. Students use assessment instruments (e.g., learning inventories) to help them identify their own strengths and weaknesses as strategic learners. Students are ultimately expected to integrate and apply the learning skills discussed across their own academic programs and become effective and efficient learners. Students developing these skills should be able to continually draw from the theoretical models they have learned. (Cross-listed as PSYC 1300).

EDUC 1301. Introduction to the Teaching Profession. 3 Credit Hours.
An enriched, integrated pre-service course and content experience that provides active recruitment and institutional support of students interested in a teaching career, especially in high need fields. The course provides students with opportunities to participate in early field observations at all levels of P-12 schools with varied and diverse 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 for Educator Certification Pedagogy and Professional Responsibilities standards; and the course must include a minimum of 16 contact hours of field experience in P-12 classrooms.

EDUC 2301. Introduction to Special Populations. 3 Credit Hours.
(800) An enriched, integrated pre-service course and content experience that provides an overview of schooling and classrooms from the perspectives of language, gender, socioeconomic status, ethnic and academic diversity, and equity with an emphasis on factors that facilitate learning. The course provides students with opportunities to participate in early field observations of P-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 3300. World Regional Geography for Educators. 3 Credit Hours.
Examine practices for teaching World Regional Geography. Required for a Bachelor of Science degree in Interdisciplinary Studies and for teacher certification. Must be completed before students attempt the TExES, the teacher certification exam, and before student teaching.

EDUC 3310. Theories of Learning. 3 Credit Hours.
(WI) This course examines influential learning theories and the implications of these theories for educational practice. Survey of seminal theorists and their contributions to understanding how learning occurs and how learners develop and construct meaning to acquire knowledge and skills. This course should be taken in the first block of the teacher education program. Prerequisite(s): Admission to teacher education block 1.

EDUC 3315. Literacy Instruction for Bilingual Classroom. 3 Credit Hours.
Examine knowledge and skills required to teach limited English language learners, with an emphasis on program implementation, curriculum, materials, oral language, literacy development and assessment strategies. Spanish and English will be spoken in this class. Prerequisite(s): Passing scores on the BTLPT – Spanish (Bilingual Target Language Proficiency Test) – Spanish, EDUC 3325, EDUC 3320 and READ 3311.
EDUC 3320. Professional Development in Learner Centered Schools. 3 Credit Hours.
Examine students in learner centered schools. Study lesson planning, learning styles and strengths of diverse learners, learner-centered instructions, instructional strategies, lesson plans, TEKS educational equality, and the professional standards of educators. Technology lab and documentation of field experiences are required. Certification Fee - $150.

EDUC 3325. Fundamentals of Bilingual and English as a Second Language Education. 3 Credit Hours.
Examine history, philosophies, theoretical, and legal foundations regarding Bilingual/English as a Second Language education. Learn the knowledge and skills required to teach English Language Learners, with an emphasis on instructional strategies. Prerequisite(s): EDUC 3320.

EDUC 3330. Professional Development II: Effective Instruction. 3 Credit Hours.
Examine the relationship between the state-adopted curriculum, learner-centered proficiencies, and best practices. Study lesson cycles, models of learning, instruction, uses of technology, assessment, classroom management, micro-teaching and field experience. Classroom management lab and documentation of field experiences are required. Prerequisite(s): EDUC 3320 and admission to the Teacher Education Program.

EDUC 3340. Mathematics Instruction for Classroom Teachers. 3 Credit Hours.
Study for preservice educators to plan, organize, deliver, and evaluate developmentally appropriate educational strategies and instructional techniques in teaching mathematics to diverse learners. Design responsive instruction appropriate for all learners which reflects an understanding of relevant mathematics content, promotes active engagement, and is based on continuous and appropriate assessment.

EDUC 3350. Science Instruction for Classroom Teachers. 3 Credit Hours.
Study for preservice educators to plan, organize, deliver, and evaluate developmentally appropriate educational strategies and instructional techniques in teaching science to diverse learners. Design responsive instruction appropriate for all learners which reflects an understanding of relevant science content, promotes active engagement, and is based on continuous and appropriate assessment.

EDUC 3360. The Arts for Educators. 3 Credit Hours.
This methods course is concerned with providing experience for preservice educators to plan, organize, deliver, and evaluate developmentally appropriate educational strategies and instructional techniques in teaching the arts to diverse learners. The students design responsive instruction appropriate for all learners which reflects an understanding of relevant music, art and theater content, promotes active engagement, and is based on continuous and appropriate assessment.

EDUC 3370. Instructional Strategies. 3 Credit Hours.
This course is designed to develop advanced strategies to identify readiness for learning; and to understand when and how to adjust content, process, or product in order to differentiate responsive instruction effectively. This course should be taken in the second block of the teacher education program. Certification Fee - $150. Prerequisite(s): Completion of teacher education block 1 with a minimum 2.75 GPA.

EDUC 3420. Instructional Planning and Delivery. 4 Credit Hours.
This course addresses the lesson cycle; instructional models; use of technology to enhance instruction; resources to plan, deliver and assess instruction; the role of assessment in driving instruction; Texas Essential Knowledge and Skills (TEKS) and the curricula scope and sequence. This course should be taken in the first block of the teacher education program. Prerequisite(s): Admission to teacher education block 1.

EDUC 3430. The Learner and the Learning Environment. 4 Credit Hours.
This course introduces various classroom organizational strategies, offers preservice teachers ideas for effective classroom management, and develops an understanding of the value of collaborating within the school community. The course addresses the creation of safe and supportive learning environments that foster high levels of student engagement and maximize student learning. This course should be taken in the first block of the teacher education program. Prerequisite(s): Admission to teacher education block 1.

EDUC 4304. Early Childhood Environments Professional Development III. 3 Credit Hours.
Study all aspects of classroom management, including the physical environment and use of centers for diverse groups of early elementary students. Examine current issues related to early childhood education. Demonstrate developmentally appropriate effective teaching practices in field-based setting. Prerequisite(s): Admission to the Teacher Education Program, Application for Practicum, READ 3330, EDUC 3325, EDUC 3330, EDUC 3430 and EDUC 3350; Concurrent enrollment in READ 4304, READ 4305 and EDUC 4320. Field experience fee $75.

EDUC 4305. Language Concepts and Proficiencies in a Bilingual Classroom. 3 Credit Hours.
Examine curriculum requirements as applicable to bilingual education, language concepts and proficiencies needed for teaching language arts, math, science, and social studies in bilingual classrooms. Evaluate commercial and research-based programs in order to adapt materials for students with varying degrees of language and literacy proficiency. Field experiences required. Prerequisite(s): Passing scores on the BTLPT – Spanish (Bilingual Target Language Proficiency Test-Spanish), EDUC 3325, EDUC 3315, READ 3311 and READ 3335.

EDUC 4312. Literacy Development II. 3 Credit Hours.
(WI) A field-based course surveying characteristics of the transitional/independent literacy learner, methods of instruction for writing, strategy building, comprehension, vocabulary, word identification, utilizing the Texas Essential Knowledge and Skills. Examines typical/atypical reading development and strategies for assessing/addressing reading differences in individual learners. Explores structures and features of expository text including examination of supports and challenges within the text.

EDUC 4315. Elementary Curriculum, Assessment and Instruction. 3 Credit Hours.
Implement assessment-driven instruction and curricular design in interdisciplinary contexts. Apply knowledge of developmental stages, learner needs, and the stated expectations of TEKS in the core content areas to design, implement, and evaluate an interdisciplinary curriculum. Study effective teaching practices, problem based learning and technology applications. Pre-requisites EDUC 3320, EDUC 3330 and concurrent enrollment in EDUC 4304, READ 4304 and READ 4305.

EDUC 4317. Assessment & Interpretation for Secondary Teachers. 3 Credit Hours.
This course is for students seeking a secondary certification to examine technology driven design and implementation of data-driven instruction to include the implementation of effective assessments, student data collection, analysis, interpretation, and communication aligned to learning goals for a diverse student population. The objective of this course if for the secondary pre-service teachers to be able to demonstrate the ability to effectively collect, analyze and communicate student data for continuous teaching and learning for diverse students. Prerequisite(s): Admission into the Teacher Education Program. Field Experience required. Field Experience Fee: $25.
EDUC 4320. Integrated Social Studies Methods, EC-8. 3 Credit Hours.
This methods course is concerned with providing experience for preservice educators to plan, organize, deliver, and evaluate developmentally appropriate educational strategies and instructional techniques in teaching Social Studies through the integration of English Language Arts and Fine Arts. It correlates social studies content with the National Council of Social Studies Strands and disciplines and the Texas Essential Knowledge and Skills. This course should be taken in the third block of the teacher education program. Prerequisite(s): Admission to teacher education program.

EDUC 4325. History for Educators. 3 Credit Hours.
This methods course is concerned with providing experience for pre-service educators to plan, organize, deliver, and evaluate developmentally appropriate educational strategies and instructional techniques in teaching US, Texas and world history to diverse learners. The students design responsive instruction appropriate for all learners which reflects an understanding of relevant history content, promotes active engagement, and is based on continuous and appropriate assessment.

EDUC 4330. Professional Development III. 3 Credit Hours.
Field-based and practicum experiences are required in school settings, where students plan units of instruction, examine various models of instruction, analyze classroom management strategies, and demonstrate competencies in effective teaching practices. Prerequisite(s): Admission to the Teacher Education Program, EDUC 3330 and READ 3335. Field experience fee - $75.

EDUC 4331. Curriculum & Instruction for Secondary Teachers. 3 Credit Hours.
The course will study lesson planning, lesson cycles, learning styles and strengths of diverse learners. Additionally, teacher candidates will explore learner-centered instruction and strategies, brain-based learning, cooperative learning, assessment, classroom management, integration of technology, and the state-adopted curriculum (TEKS). The teacher candidates will examine the relationship between the state-adopted curriculum, learner-centered proficiency, and best practices. Field experiences 25 hours are required as well as $25 field experience fee. Additionally, a fee of $150 is due for certification. Prerequisite(s): Admission to the Teacher Education Program.

EDUC 4332. Classroom Management for Secondary Teachers. 3 Credit Hours.
This course provides secondary educators with knowledge and skills to create safe, supportive, and respectful learning environments. Students will analyze classroom management strategies and examine various modes of instruction. An analysis of legal and ethical issues as they relate to the classroom are an important component of the course. Secondary students will have field-based experience based on in-school settings. Admittance into the Teacher Education Program. Prerequisite(s): Admittance into the Teacher Education Program. Field Experience required. Field Experience Fee: $25.

EDUC 4335. Capstone for Educators. 3 Credit Hours.
Capstone is a culminating course designed for teacher candidates to synthesize their knowledge across the program through the development of artifacts that demonstrate effective integration of content understanding and pedagogical skills. The teacher candidates will analyze student learning and reflect on their teaching effectiveness in order to facilitate learning for all students. Prerequisite(s): Admittance to the Teacher Education Program, successful completion of Content Certification Examination, and concurrent enrollment in Clinical Teaching (EDUC 4691).

EDUC 4337. Educating Secondary Exceptional Learners. 3 Credit Hours.
This course provides instruction in the historical, philosophical, and legal foundations of exceptional education as related to current issues and practices in educational settings. It comprises issues and trends that include transition – related instruction, postsecondary programs, and adaptability to and in secondary classrooms. Teacher candidates will develop an awareness of legal aspects of exceptional education as well as needs and services specific to students with specific needs in the secondary classroom. Prerequisite(s): Field experience required. Field experience fee $25.

EDUC 4340. Technology Application and Integration for Classroom Teachers. 3 Credit Hours.
Study for preservice educators to plan, organize, deliver, and evaluate instruction for diverse learners through the effective use and integration of current technology. Use of technology for ethical and professional communication with colleagues, community, and students. Prerequisite(s): Admission to Clinical Teaching; successful completion of designated content area Texas Examination of Educator Standards (TExES); concurrent enrollment in EDUC 4691 and EDUC 4335 or permission of department chair.

EDUC 4345. Mathematics & Science Methods in the Elementary Classroom. 3 Credit Hours.
This purpose of this course is to help preservice teachers discover how elementary children think and learn about mathematics. Examines the curriculum foundations and instructional methods for elementary mathematics. Building upon previous mathematical knowledge, and with a focus on supporting high quality mathematics education, this course provides resources and opportunities for experience with a number of instructional strategies and manipulatives. Science instruction focuses on the methods, materials and approaches for teaching science, including developmentally appropriate introductions to the physical, earth and life sciences. This course should be taken in the third block of the teacher education program. Prerequisite(s): Admission to teacher education program.

EDUC 4384. Classroom Teaching Internship. 3 Credit Hours.
Explore 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. May be repeated for credit. Prerequisite(s): Admission to the Teacher Education Program. Field experience fee - $75.

EDUC 4388. Education Problems. 1-3 Credit Hours.
Study of selected problems in education. Engage in independent research, reading and discussions under the personal direction of the instructor, topics may vary according to student need. Prerequisite(s): Junior or senior standing, admission to the Teacher Education Program and permission of Curriculum and Instruction Program Coordinator.

EDUC 4484. Field Experience. 4 Credit Hours.
Supervised field-based experiences in public school classrooms. Major emphasis is placed on the identification and exploration of instructional strategies, the learning environment, and professional practices designed to prepare for clinical teaching. This course should be taken in the third block of the teacher education program. Field experience fee: $75.00. Prerequisite(s): Admission to teacher education program.
EDUC 4691. Clinical Teaching. 6 Credit Hours.
Explore supervised clinical teaching in the public schools at the appropriate level (1-18). A demonstration of proficiency in the application of effective teaching practices and classroom management strategies is required. Prerequisite(s): Admission to Clinical Teaching and the successful completion of designated content area of the Texas Examination of Educator Standards (TExES); Concurrent enrollment in EDUC 4335 and EDUC 4340*, or permission of department chair. * 7-12 math students may take MATH 3315 in place of EDUC 4340. Field experience fee - $75.

EDUC 5090. Education Comprehensive Examination. 0 Credit Hours.
Study and take the education examination for Non-thesis students. Register for the comprehensive examination during final semester of graduate coursework, or upon permission of advisor. All comprehensive examinations will be written, but an oral component may also be required. A maximum of three attempts will be allowed. Thesis student do not take this examination.

EDUC 5198. Education Thesis. 1-6 Credit Hours.
Independent research course in which a student proposes and completes an original, quantitative research project. Scheduled when the student is ready to begin thesis. No credit awarded until proposal and thesis are complete. Prerequisite(s): Completion of all other coursework required for the degree and consent of the major professor or permission of department chair.

EDUC 5300. Foundations and History of Education. 3 Credit Hours.
Examine history of education in the United States through a study of the philosophical, historical, psychological and social foundations of curriculum. Emphasis is on the development of a philosophy of education and critical thinking about issues in education. Students must complete this course within the first twelve semester hour of graduate study.

EDUC 5301. Readings in Professional Development. 3 Credit Hours.
Examine current issues in the professional development of educators. Study 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. Cultural Diversity in Schools and Community. 3 Credit Hours.
Examine various dimensions of culture related to teaching, learning, and support services in the community. Study ethnicity, socio-economic status, language, gender, religion, age, and exceptionality.

EDUC 5304. Human Development. 3 Credit Hours.
Analyze human behavior with emphasis on the child, adolescent, and adult learner. Develop insight and social and cultural forces in the formation of personality, the self, and roles in group membership.

EDUC 5306. Adult Education. 3 Credit Hours.
Examine philosophy and concepts of adult education including the role of the adult educator, setting of objectives, integration of adult learning with career goals or changes and assessment of educational needs of adults.

EDUC 5311. Methods of Effective Teaching. 3 Credit Hours.
Study research on effective teaching practices with an emphasis on direct instruction. Learn mastery learning, assessment of learning and use of assessment to guide instruction. Apply technology and effective teaching practices to the design and delivery of instruction. Technology lab is required. Certification Fee - $150.

EDUC 5312. Language and Social Studies Seminar. 3 Credit Hours.
Learn to teach Social Studies through the application of the writing process, reading/writing connections, and children's literature. Prerequisite(s): 18 hours of professional education course work.

EDUC 5314. Creating and Managing Learning Environment. 3 Credit Hours.
Learn to create and maintain a positive learning environment. Study cultural dimensions of classroom management, motivating student achievement, fostering cooperation among students, reinforcing appropriate behavior, and ethics and law governing teacher-student relations. Apply teaching and classroom management practices in a clinical laboratory setting.

EDUC 5322. Teaching Mathematics and Science. 3 Credit Hours.
Study 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. 3 Credit Hours.
Study early childhood education curriculum and practices. Examine current trends in early childhood curriculum with an emphasis on the modifications needed to ensure the success of all young children. Prerequisite(s): 18 hours of professional educational course work.

EDUC 5338. Curriculum Design and Implementation. 3 Credit Hours.
Explore curriculum selection, design, implementation, and evaluation processes within the classroom and school district settings. Study factors that influence curriculum decision-making processes and a review of theories of curriculum development. Major emphasis on curriculum alignment and curriculum auditing.

EDUC 5340. Evidence Based Teaching. 3 Credit Hours.
In this course, participants will learn about various instructional strategies to enhance learning experiences in education. The class will cover appropriate methods and techniques from basic principles of learning and brain-based/whole-brain techniques. The course will also foster 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 5345. Advanced Instructional Strategies for Diverse Learners. 3 Credit Hours.
Study appropriate methods and techniques from basic principles of learning. Develop 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 and Interpretation for Education Leaders. 3 Credit Hours.
Examine 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 Programs. 3 Credit Hours.
Study 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.
Study 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.
Study theories and models of creativity. Emphasis will be given to identifying the creative potential of students in all classrooms. Examine and develop instructional processes which accommodate the needs of creative learners. Prerequisite(s): EDUC 5360.
EDUC 5364. Curriculum and Material Development For Gifted Learners. 3 Credit Hours.
Study a comparison of regular and gifted curricula with a focus on developing an interdisciplinary curriculum for gifted learners. Examine and evaluate existing materials and equipment which support instruction for the gifted in both regular and special programs. Emphasis will be on developing and evaluating teacher constructed materials. Prerequisite(s): EDUC 5360.

EDUC 5366. Instruction and Evaluation For Gifted Learners. 3 Credit Hours.
Analyze methods of determining specific learning styles and talents, with emphasis placed on implementing appropriate instruction for programs. Learn methods and tools of informal and formal evaluation and assessment. Prerequisite(s): EDUC 5360 and EDUC 5364.

EDUC 5369. Education Seminar. 1-3 Credit 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 5370. Techniques of Research. 3 Credit Hours.
Explore fundamental concepts and tools of research applied to psychological and educational problems. Study rationale of research, analysis of problems, library skills, sampling, appraisal instruments, statistical description and inference, writing the research report, and representative research designs.

EDUC 5384. Teaching Internship. 3 Credit Hours.
Gain field-based experience in classroom teaching. Interns must demonstrate proficiency in applying effective teaching practices and classroom management strategies in a school classroom. Prerequisite(s): admission to a teacher certification program; satisfactory performance in the professional development courses preceding the internship. May be repeated for credit. Field experience fee - $75 or Internship fee - $1500 (effective fall 2016).

EDUC 5385. Teaching Internship II. 3 Credit Hours.
Explore a 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(s): Admission to a teacher certification program at TAMUC; satisfactory performance in the professional development courses preceding the internship; Second semester Prerequisite(s): EDUC 5384. Field experience fee - $75 or Internship fee - $1500 (effective fall 2016).

EDUC 5388. Special Education Problems. 1-6 Credit Hours.
Study of selected problems in special education. Engage in independent research, reading and discussions under the personal direction of the instructor, topics may vary according to student need. Open to graduate students who are capable of developing a problem independently. Prerequisite(s): Graduate major in Education.

EDUC 5389. Special Topics In Education. 3 Credit Hours.
Examine 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 course may be repeated for credit as topic changes. Prerequisite(s): Permission of instructor.

EDUC 5391. Gifted Education Practicum. 3 Credit Hours.
Supervise 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. Prerequisite(s): Successful completion of EDUC 5360, EDUC 5362, EDUC 5364 and EDUC 5366.

Political Science Courses

POLI 3300. Critical Thinking About Politics. 3 Credit Hours.
Introduces students to political science research tools and the application of critical thinking techniques to politics and political science. Topics include finding reliable sources, critically evaluating sources, identifying political agendas and propaganda, using and critiquing polls, and examining the social-scientific approach to political science. Offered in Fall semesters.

POLI 3301. Political Economy of Globalization. 3 Credit Hours.
Examine the demographic, technological, and economic forces that have come together to shape a more culturally, economically, and politically integrated world, and the hard political and economic choices that must be made in competitive environments.

POLI 3302. Elections and Political Parties. 3 Credit Hours.
Study electoral process in American national, state, and local political systems. Special emphasis on the evolution of the structure and functions of political parties, and other participants in the electoral process.

POLI 3303. Comparative State and Local Government. 3 Credit Hours.
Explore variations and similarities in the practice of politics and in the administration of government in the states. Special emphasis on local government and state-national relations. Prerequisite(s): GOVT 2305, GOVT 2306.

POLI 3304. The Executive Branch. 3 Credit Hours.
Examine the organization of executive power in the United States national, state, and local government systems. Evolution of the structure and functions of the Presidency, national, state and local bureaucracies, the role of parties, legislatures, courts, and interest groups are analyzed as participants in the executive process. Prerequisite(s): GOVT 2305.

POLI 3305. Legislation. 3 Credit Hours.
Examine the legislative process in American national, state, and local political systems. Analyze 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(s): GOVT 2305.

POLI 3306. Political Economy. 3 Credit Hours.
Explore the historical, philosophical, and theoretical relationships between the state and the economy. Prerequisite(s): None.

POLI 3307. Public Administration. 3 Credit Hours.
Examine the concepts and practices of American public administration. Prerequisite(s): GOVT 2305.

POLI 3308. International Politics. 3 Credit Hours.
(WI) Explore the development of the national state system, the problems and issues which have arisen, international agencies created to cope with these problems, and the principles of international conduct.

POLI 3310. Environmental Politics. 3 Credit Hours.
Explore the politics of environmental protection in America. Special emphasis on domestic environmental policy and the affects of federalism in shaping and implementing environmental policies. Prerequisite(s): GOVT 2305.
POLI 3320. Terrorism and Political Violence. 3 Credit Hours.
Examine the causes of terrorism and other forms of political violence, with special emphasis on measures of prevention and counter-terrorism.

POLI 3330. Understanding Social Science Research. 3 Credit Hours. (WI) Develop skills in political science research, with emphasis on hypothesis testing, measurement, formal modeling, and statistical analysis. Statistical concepts covered include central tendencies and statistical distributions, regression, and maximum likelihood estimation.

POLI 3350. Politics and Propaganda in Film. 3 Credit Hours. (WI) This course explores the political uses of film, with a particular focus on the uses of the documentary style to influence public opinion. Topics covered include government-sponsored and privately-produced propaganda, the role of film in broader propaganda or political campaigns, and the ethical uses of film in the context of politics.

POLI 3355. Religion and Politics. 3 Credit Hours.
Explore the historic development of church-state relations in the United States, the evolution of church-state constitutional law, and the impact of this history and law on the current political environment. Special Emphasis on the role played by religion in political campaigns, local politics, and interest group activities.

POLI 4302. Constitutional Law II. 3 Credit Hours.
Examine the origin and development of constitutional prohibitions as shown by leading US Supreme Court decisions on civil rights, contracts, due process, economic regulation, eminent domain, labor relations, obscenity, political utterance, and religion. Prerequisite(s): GOVT 2305.

POLI 4303. Political Theory through 1789. 3 Credit Hours.
Philosophical ideas concerning basic political problems from the Greeks to 1789. Prerequisite(s): GOVT 2305, GOVT 2306.

POLI 4304. Political Theory Since 1789. 3 Credit Hours.
Philosophical ideas concerning basic political problems since 1789. Prerequisite(s): GOVT 2305, GOVT 2306.

POLI 4305. Comparative Government and Politics. 3 Credit Hours.
Examine the relationship of government and politics of the major world powers, including topics from Asia, Africa, Europe, and the Americas.

POLI 4310. Environmental Policy. 3 Credit Hours.
Examine the politics of environmental protection worldwide. Special emphasis on international environmental policy and agreements and treaties made by nations to shape and implement environmental policy. Prerequisite(s): GOVT 2305.

POLI 4315. Foreign Policy. 3 Credit Hours.
Study America's role in the modern world. Particular emphasis is placed on the policy makers, and on external and internal factors which affect decision making.

POLI 4316. Conflict Studies. 3 Credit Hours.
Study the causes of international and civil conflict, historical changes in the nature of war, and predictions of future conflicts.

POLI 4317. Peace Studies. 3 Credit Hours.
Explore the causes of peace, covering bargaining and war termination, social conflict resolution, international cooperation, and the ethics of peace.

POLI 4320. Weapons of Mass Destruction. 3 Credit Hours.
Examine the physical and political effects of chemical, biological, and nuclear weapons, with emphasis on issues of deterrence and arms control.

POLI 4321. Civil Wars and Military Intervention. 3 Credit Hours.
Examine the causes, characterstics, and effects of civil wars, with particular emphasis on preventing the resumption of warfare after peace agreements, and the effect of military intervention on the outcome and recurrence of civil war.

POLI 4340. Political Ethics. 3 Credit Hours.
Compare theories of political ethics from ancient times to the present. Special attention is given to the topics of justice and virtue.

POLI 4341. Freedom and Authority. 3 Credit Hours.
Examine the legitimacy of government and the sources of individual rights. Special attention is given to the idea of a "social contract," restraints on government, arguments for and against restricting liberty, and who should be permitted to participate in politics.

POLI 4350. Government Seminar. 3 Credit Hours.
Explore topics in government with independent reading, research, discussion, and writing, under personal direction of instructor. May be taken more than once for credit. Prerequisite(s): Senior standing, 18 hours of POLI, or permission of Program Coordinator.

POLI 4365. Politics of Literature. 3 Credit Hours.
Examine the politics of fiction through a single author or genre to critically evaluate its role in political persuasion, especially normative political theory. Attention is paid to the political uses of genre conventions and the political power of shared myths. POLI 4365 may be repeated once for credit when the author/genre covered differs.

POLI 4380. Administration of Justice. 3 Credit Hours.
Analyze the structure, function, and interrelationship of the components of the criminal justice system at the federal, state, and local levels, including the history and philosophy of criminal justice in a democratic society.

POLI 4384. Political Science Internship. 3,6 Credit Hours.
Apply and integrate academic study with professional experience in Political Science. 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 160 hours of work required for 3 hours of credit. Prerequisite(s): 2.5 overall grade point average, senior standing, and permission of Program Coordinator. Field experience fee $75.

POLI 4388. Political Science Problems. 1-3 Credit Hours.
Explore problems in Political Science with independent reading, research and discussion. Entry into this course will be arranged with the political science advisor and instructor.

POLI 4395. Political Science Capstone. 3 Credit Hours. (WI) Integrate and use fundamental concepts learned in previous political science courses to research and analyze real-world political phenomena and problems. Students present oral and written reports on their research, supplemented by appropriate internet and multimedia materials, as well as portfolios documenting their research.

POLI 5090. Political Science Comprehensive Examination. 0 Credit Hours.
Non-thesis students should register for the comprehensive examination during their final semester of graduate coursework, or upon permission of advisor. All comprehensive examinations will be written, but an oral component may also be required. A maximum of three attempts will be allowed. Thesis students do not take this examination.

POLI 5300. Political Science Research Methods. 3 Credit Hours.
Learn the elements of research design and statistical analysis. Topics covered include hypothesis-testing, reliability and validity, measures of association, linear regression, and maximum likelihood estimation.
POLI 5301. Political Decision-Making. 3 Credit Hours.
Learn formal models of political decision-making, including game theory, spatial voting models, decision theory, and collective social choice.

POLI 5302. Constitutional Law. 3 Credit Hours.
Predict the resolution of constitutional controversies by examining theories of constitutional interpretation and judicial decision-making in the United States.

POLI 5303. Origins of Conservative Political Thought. 3 Credit Hours.
This course covers the philosophical origins of conservative political thought, focusing on its traditional, statist, and libertarian variants.

POLI 5304. Political Liberalism and its Critics. 3 Credit Hours.
Explore the philosophical assumptions and implications of liberalism, and examine its internal consistency and the extent to which it withstands challenges from competing systems of political thought.

POLI 5305. American Politics. 3 Credit Hours.
Examine basic approaches to the study of American Politics, including major works and recent research on this topic.

POLI 5306. Comparative Politics. 3 Credit Hours.
Examine basic approaches, major works, and recent research on the study of comparative politics and government.

POLI 5307. International Relations. 3 Credit Hours.
Examine basic approaches to the study of the politics of international relations, including major works and recent research on the topic.

POLI 5315. Foreign Policy. 3 Credit Hours.
Learn foreign policy decision-making. Understand how decisions are made, their consequences, and their ethical implications, with special emphasis on the foreign policy decisions of the United States.

POLI 5316. Conflict Studies. 3 Credit Hours.
Study the causes of international and civil conflict, historical changes in the nature of war, and predictions of future armed conflicts.

POLI 5317. Peace Studies. 3 Credit Hours.
Study the causes of peace, covering bargaining and war termination, social conflict resolution, international cooperation, and the ethics of peace.

POLI 5318. Terrorism Studies. 3 Credit Hours.
Study the causes of terrorism and other forms of political violence, with particular emphasis on measures of prevention and counter-terrorism.

POLI 5321. Civil Wars. 3 Credit Hours.
Examine the onset, evolution, and termination of civil wars. Particular emphasis is given to the role that outside actors play in civil wars, including foreign military intervention.

POLI 5330. Theories of Public Management. 3 Credit Hours.
Apply theories of public administration, and study the problems of administrative management in public organizations, and the use of law for administrative decision-making.

POLI 5350. Political Forecasting. 3 Credit Hours.
Research and analyze real-world political phenomena and problems. Learn and use different approaches to political forecasting, with a focus on formal models of politics.

POLI 5352. General Wars in World History. 3 Credit Hours.
Assess theories of war between major powers. Attention is given to structural, economic, and military factors that contribute to world wars, as well as the prospects for a Third World War.

POLI 5355. International Relations of the Middle East. 3 Credit Hours.
Examine the international politics of the Middle East, with particular emphasis on Israel and its regional rivals.

POLI 5360. Political Culture and Public Policy. 3 Credit Hours.
Study the political culture as it forms and is formed by public policy, including the culture of environmental policy, bureaucratic policy, and foreign policy.

POLI 5361. Politics of Education. 3 Credit Hours.
Study the relationship between politics and education in America, including both K-12 and post-secondary systems.

POLI 5362. Environmental Policy. 3 Credit Hours.
Study the politics of the natural environment with emphasis on the role of government in environmental protection.

POLI 5365. Politics of Literature. 3 Credit Hours.
This graduate seminar examines the politics of literature through a single author or genre as a method of introducing and critically evaluating normative political theory. Special attention is paid to the political uses of genre conventions and the political power of shared myths. POLI 5365 may be repeated once for credit when the author/genre covered differs.

POLI 5388. Problems. 1-3 Credit Hours.
Explore selected topics in Political Science. Independent reading, research, discussion, under supervision of senior professor.

POLI 5391. Political Science Practicum. 3 Credit Hours.
Gain professional experience in school administration, counseling, supervision, college or public school teaching, or other public service professions. May be repeated once for credit. Field experience fee: $75.

POLI 5398. Political Science Thesis. 3 Credit Hours.
Scheduled when student is ready to begin thesis. No credit until thesis is accepted.

Reading Courses

READ 3301. Introduction to Children's Literature. 3 Credit Hours.
Study literature for children focusing on the use of classic and contemporary texts to promote interest, motivation, and critical reading skills for self-selected reading in the elementary student. Learn to use texts to emphasize literary genre, text structures, and literary devices as tools for making connections and meaning. Prerequisite(s): Required core ENGL classes for degree. Credit will not be granted for READ 3301 and ENGL 3350.

READ 3310. Foundations of Literacy. 3 Credit Hours.
This course provides an overview of foundational concepts, principles, and best practices related to the science of teaching reading. Includes a survey of the cognitive, socio-cultural, linguistic, and motivational influences on literacy and language development. Presents the key scientifically-based reading research foundations needed to understand how reading develops from early childhood through adolescence. Prerequisite(s): Admission to teacher education block 1.

READ 3311. Literacy Development I. 3 Credit Hours.
This course addresses the theory and practice of teaching early reading. Takes into consideration theories of learning, understandings of students and their needs, and the backgrounds and interests of individual students. Study characteristics of typical and atypical reading development in the emergent/early learner, explore materials, procedures, assessments and instructional methods. Prerequisite(s): Completion of teacher education block 1 with a minimum 2.75 GPA.
READ 3320. Fundamentals of Teaching Reading. 3 Credit Hours.
(WI) This course focuses on research-based competencies essential for effective literacy instruction. Surveys characteristics of normal reading development in the elementary through middle school learner; explores materials, procedures, assessment and instructional methods considered effective in teaching oral language, writing, strategy building for comprehension, vocabulary, and word identification.

READ 3330. Reading II: Assessment, Instruction and Reader Development. 3 Credit Hours.
(WI) Study characteristics of the transitional and fluent literacy learner, methods of assessment and instruction for strategy building, comprehension, vocabulary, word identification, and TEKS/TAKS. Examine normal reading development, reading difficulties, strategies for assessing/addressing reading differences including diverse learner reading processes and development of literacy in English or ELL. Prerequisite(s): READ 3311 and Admission to the Teacher Education Program. Concurrent enrollment in EDUC 3330.

READ 3335. Content Area Reading. 3 Credit Hours.
(WI) Examine factors that influence learning from content text and study specific instructional strategies which promote comprehension, vocabulary development, effective study strategies, and test-taking skills. Study ways to modify text for diverse learners and the principles of research-based reading instruction. Must be admitted to the Teacher Ed Program.

READ 4304. Reading and Writing Across the Curriculum. 3 Credit Hours.
(WI) Study theory and instructional strategies for teaching the writing process in elementary and middle schools. Learn stages of the writing process, issues at the different grade levels, teaching with mini-lessons, early literacy, spelling, handwriting, developing listening skills, process writing, and the use of children's literature to teach writing. Prerequisite(s): READ 3330 and EDUC 3330, and concurrent enrollment in READ 4305 and EDUC 4304 or EDUC 4330.

READ 4305. Implement Classroom Reading Instruction. 3 Credit Hours.
Study state and national reading initiatives, approaches to teaching reading, procedures for organizing the elementary and middle school classrooms for reading instruction, research on effective reading-writing instruction, and roles of school personnel and parents in the school reading program. Prerequisite(s): READ 3330 and EDUC 3330, and concurrent enrollment in READ 4304 and EDUC 4304 or EDUC 4330, or permission of department chair.

READ 4312. Literacy Development II. 3 Credit Hours.
(WI) A field-based course surveying characteristics of the transitional/independent literacy learner, methods of instruction for writing, strategy building, comprehension, vocabulary, word identification, utilizing the Texas Essential Knowledge and Skills. Examines typical/atypical reading development and strategies for assessing/addressing reading differences in individual learners. Explores structures and features of expository text including examination of supports and challenges within the text. Prerequisite(s): Admission to teacher education program.

READ 4313. Analysis and Response. 3 Credit Hours.
(WI) This course examines the foundational concepts, principles and best practices relating to assessment, utilizing a variety of evaluation and assessment tools. Students will analyze assessment data related to literacy development in order to plan appropriate instruction for typical/atypical learners. In-depth analyses are prepared to communicate student literacy outcomes to various audiences. Prerequisite(s): Admission to teacher education program.

READ 5370. Literacy Development. 3 Credit Hours.
Analyze models of the reading and writing processes. Emphasis on characteristics of emergent, early, transitional and fluent literacy, instructional strategies in reading and writing, phonics instruction and strategies for teaching English language learners, and the essential knowledge and skills in the language arts curriculum. Prerequisite(s): admission to the teacher certification program.

READ 5371. Advanced Strategy for Literacy Development. 3 Credit Hours.
Study research in literacy development from early childhood through adulthood. Learn to develop research-based literacy programs from early childhood through adulthood, apply informal diagnostic and remedial procedures for English language learners, elementary, secondary and adult readers, and survey print and non-print materials, including textbooks, trade books and computer software. Prerequisite(s): admission to the teacher certification program.

READ 5372. Language Arts. 3 Credit Hours.
Examine research and strategies for implementing the reading/writing process in classrooms. Explore integrated curriculum, the use of children's literature, classroom management and organization, evaluation, working with diverse learners, and developing support networks. Prerequisite(s): READ 5373 or 9 hours of undergraduate READ courses or permission of department chair.

READ 5373. Foundations of Reading. 3 Credit Hours.
Examine theoretical models of the reading process, historical perspectives on reading instruction, and language learning. Develop an understanding of the construction of reading theory and its relationship to instructional practices. Prerequisite(s): Elementary, secondary, or all-level certification or permission of department chair.

READ 5374. Reading Resources and Materials. 3 Credit Hours.
Study print and non-print materials including content-area textbooks, trade books, and computer software. Evaluate materials and application of reading principles to instruction in content areas. Prerequisite(s): READ 5373 or 9 hours of undergraduate READ courses or permission of department chair.

READ 5375. Reading Research and Assessment. 3 Credit Hours.
Examine methods and techniques employed in reading research and assessment. Review research and the development, implementation, and dissemination of classroom research. Explore the application of appropriate diagnostic and correctional procedures for elementary, secondary, and adult learners having difficulty reading. Prerequisite(s): READ 5373 or 9 hours of undergraduate READ courses or permission of department chair.

READ 5376. Organization and Administration of Reading Programs. 3 Credit Hours.
Study state laws, trends and issues related to the administration of reading programs. Examine instructional issues and reading programs for pre-K through adult learners, censorship issues, textbook/test adoption procedures, roles and responsibilities in the reading program, staff development, and change strategies. Prerequisite(s): READ 5373 or 9 hours of undergraduate READ courses or permission of department chair. Certification Fee - $150.

READ 5378. Reading Problems. 1-3 Credit Hours.
Study of selected problems in reading. Engage in independent research, reading and discussions under the personal direction of the instructor, topics may vary according to student need. Prerequisite(s): Permission of department chair.
READ 5391. Reading Practicum. 3 Credit Hours.
Apply knowledge gained in previous Reading Specialist certification courses. Practicum candidates will be directly involved in providing 180 clock hours of reading services to students in a local public or private school setting, and will document expertise and experience in all four Standards. Prerequisite(s): READ 5373, READ 5374, READ 5375, READ 5376 and ENGL 5321; two years of creditable classroom teaching experience. Field experience fee - $75.

B.S. Sociology

OVERVIEW

Sociology is the study of society and social institutions using a distinctive perspective, called the sociological imagination, which can transcend surface appearances to illuminate the complex social reality underneath. As part of the sociology program, students will develop their sociological imaginations in order to understand how broader social forces can constrain or enhance our lives.

Sociology students graduate with the ability to understand our complex social world, along with the individuals and organizations within. They excel in critical thinking, value cross-cultural perspectives, and have a practical understanding of today's social issues. Sociology students explore many contemporary topics, including:

- work and the economy
- the intersections of society and personal identity
- people's experiences of marginalization and deviance
- problems of social inequality
- the processes of social mobilization and how societies change.

Program Level Student Learning Outcomes

The student will be able to:

1. Demonstrate skills and techniques in conducting social science research.
2. Define and apply sociological theory.
3. Identify social inequalities in terms of race, ethnicity, class, gender, and sexuality.
4. Demonstrate discipline-appropriate writing ability.

Bachelor of Science - Sociology Program Requirements

Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan.

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Second Year

| Fall      |                                            |              |
|           | CORE REQ Communications (010)              | 3            |
|           | CORE REQ American History (060)            | 3            |
|           | CORE REQ Government/Political Science (070) | 3            |
|           | CORE REQ Component Area Option (090)       | 3            |
|           | Any Level Elective 1                      | 3            |

| Spring    |                                            |              |
|           | CORE REQ American History (060)            | 3            |
|           | CORE REQ Government/Political Science (070) | 3            |
|           | CORE REQ Component Area Option (090)       | 3            |
|           | Any Level Minor Elective 2                 | 3            |
|           | Any Level Elective 1                      | 3            |

Third Year

| Fall      |                                            |              |
|           | ANTH 3300 or ANTH 2351 Cultural Anthropology | 3            |
|           | SOSC 3300 Social Science Proseminar         | 3            |
|           | SOCI 3303 Race and Ethnicity                | 3            |
|           | SOCI 3315 Methods of Sociological Research  | 3            |
|           | Any Level Minor Elective 2                 | 3            |

| Spring    |                                            |              |
|           | SOCI 3304 Sociological Theory               | 3            |
|           | Upper-Level Elective                        | 3            |
|           | Upper-Level SOCI Elective                   | 3            |
|           | Upper-Level SOCI Elective                   | 3            |

Fourth Year

| Fall      |                                            |              |
|           | SOCI 4303 Social Inequalities               | 3            |
|           | SOCI 4315 Social Science Statistics         | 3            |
|           | CRIJ 4315 Criminal Justice Statistics      | 3            |
|           | SOCI 4310 Sociology of the Body            | 3            |
|           | or SOCI 4311 Sociology of Sexuality        | 3            |
|           | or SOCI 4312 Gender in Society             | 3            |
|           | Any Level Minor Elective 2                 | 3            |
|           | Upper-Level Elective                        | 3            |
|           | Upper-Level SOCI Elective                   | 3            |

| Spring    |                                            |              |
|           | SOCI 4317 Qualitative Research Methods      | 3            |
|           | Upper-Level SOCI Elective                   | 3            |
|           | Upper-Level SOCI Elective                   | 3            |
|           | Any Level Minor Elective 2                 | 3            |
Sociology Courses

SOCI 1301. Introduction to Sociology. 3 Credit Hours.
(080) The scientific study of human society, including ways in which groups, social institutions, and individuals affect each other. Causes of social stability and social change are explored through the application of various theoretical perspectives, key concepts, and related research methods of sociology. Analysis of social issues in their institutional context may include topics such as social stratification, gender, race/ethnicity, and deviance.

SOCI 1306. Social Problems. 3 Credit Hours.
(080) 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.
(080) 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 2306. Human Sexuality. 3 Credit Hours.
(080) This course will provide an overview of the broad field of human sexuality. Topics will be covered from various perspectives – biological, sociological, anthropological, etc., but will focus primarily on the psychological perspective. The goal is for each student to learn factual, scientifically-based information that will provoke thought and contribute to his/her own decision-making on sexual issues outside of the classroom. (Cross-listed as PSYC 2306).

SOCI 2319. Minority Studies. 3 Credit Hours.
(040) (080) This course studies minority-majority group relations, addressing their historical, cultural, social, economic, and institutional development in the United States. Both sociological and social psychological levels of analysis will be employed to discuss issues including experiences of minority groups within the context of their cultural heritage and tradition, as well as that of the dominant culture. Core concepts to be examined include (but are not limited to) social inequality, dominance/subordination, prejudice, and discrimination. Particular minority groups discussed may include those based on poverty, race/ethnicity, gender, sexual orientation, age, disability, or religion.

SOCI 2326. Social Psychology. 3 Credit Hours.
(080) Study of individual behavior within the social environment. May include topics such as the socio-psychological process, attitude formation and change, interpersonal relations, and group processes.

SO 2336. Criminology. 3 Credit Hours.
(080) The course surveys various theories of crime, with an emphasis on understanding the social causes of criminal behavior. The techniques for measuring crime as a social phenomenon and the characteristics of criminals are examined. This course addresses crime types (such as consensual or white-collar crimes), the criminal justice system, and other social responses to crime.

SOCI 2340. Drug Use & Abuse. 3 Credit Hours.
(080) Study of the use and abuse of drugs in today’s society. Emphasizes the physiological, sociological, and psychological factors.

SOCI 3301. Sociology of the Family. 3 Credit Hours.
Study the family as a social institution with emphasis on formation, functions, maintenance, child rearing, and family disorganization.

SOCI 3303. Race and Ethnicity. 3 Credit Hours.
Analyze relationships between dominant groups and minority groups that make up American society. Examine theories of race relations and prejudice, the meaning of racial differences, group conflict, and modes of accommodation.

SOCI 3304. Sociological Theory. 3 Credit Hours.
(WI) Examine the major schools of sociological thought, including perspectives from both classic and contemporary sociological theory.

SOCI 3305. Criminology. 3 Credit Hours.
Examine theories of criminology and significant research on causes, extent, cost and ecology of crime, police, criminal, and juvenile courts, and prisons and reformatories. Special emphasis on prevention and rehabilitation. Credit for both CRIJ 3305 and SOCI 3305 will not be awarded.

SOCI 3308. Deviant Behavior. 3 Credit Hours.
Examine factors and conditions leading to behaviors that violate and deviate from fundamental social values. Analyze the relationship of personal and social maladjustment in relation to the various theories of deviant behavior.

SOCI 3310. Sociology of Aging. 3 Credit Hours.
Study the reciprocal relationship between society and those considered aged by society, utilizing concepts and theoretical frameworks applicable to that population group. Explore the social forces that impinge on the aging process, including socially constructed images of the aged, and patterns of inequality of gender, race, and economics.

SOCI 3312. Environmental Sociology. 3 Credit Hours.
(WI) Examine relationships and interactions between society and the environment. Explore how the natural world influences the way societies are organized, with special emphasis on human communities as part of natural ecosystems. Prerequisite(s): None.

SOCI 3315. Methods of Sociological Research. 3 Credit Hours.
(WI) Learn the principles and methods of social research, including research design, methods of observation, questionnaires, and interviews. Apply qualitative and quantitative techniques of inference, analysis, and research report writing, to gain practical experience in limited research studies.

SOCI 3340. Media and Society. 3 Credit Hours.
Examine the interactions of culture and the media with a focus on representations of race, class, gender, and sexuality. Evaluate contemporary mass media to explore the unique relationship between media content, the industry that creates it, and audiences whose interpretations and demands constitute its market.
SOCI 4301. The Military Family. 3 Credit Hours.
Examine the relationship between the work organization and the family in the armed forces of the United States. Using a sociological perspective, analyze and discuss contemporary issues, situations, problems, and policies relevant to military families.

SOCI 4303. Social Inequalities. 3 Credit Hours.
Examine social inequality and categories of difference from a sociological perspective. Analyze social difference and stratification on the basis of race/ethnicity, class, gender, religion, and sexuality by examining how these categories are constructed, institutionalized, and experienced. Special emphasis on economic and labor-based inequality through the lens of contemporary global processes.

SOCI 4304. Sociology of Religion. 3 Credit Hours.
Examine the principles of religion, religious belief, and practice as a sociological concept. Special emphasis on the relationship of religion to the progress and stability of the social order.

SOCI 4305. Sociological Theory. 3 Credit Hours.
(WI) Examine the major schools of sociological thought, including perspectives from both classic and contemporary sociological theory.

SOCI 4310. Sociology of the Body. 3 Credit Hours.
Study the body as the container and expression of the self, as the object of social control, and the body as it relates to race, gender, sex, class, age, ability, sexuality, and transgender identities.

SOCI 4311. Sociology of Sexuality. 3 Credit Hours.
Study how sexuality is perceived, defined, and experienced in the context of society. Analyze the influence of sexuality on our lives, reflected in social norms, attitudes and beliefs, through public and private policies and practices, and social institutions.

SOCI 4312. Gender in Society. 3 Credit Hours.
Examine socialization to sex roles, and the male/female differences in family, work, and political behavior. Special emphasis on male/female inequality, effects of gender in education and religion, and current changes in sex role definitions.

SOCI 4313. Development and Social Change. 3 Credit Hours.
Explore social processes and social problems as they are contained in the highly interdependent world system. Examine social change and development through historical, comparative, and critical perspectives. Analyze the problem of how and why societies and cultures around the world change, and evaluate whether those changes promote justice, equity, democracy, and development of human potential.

SOCI 4315. Social Science Statistics. 3 Credit Hours.
Apply the 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. Explore the role of statistics in social work, sociology, criminal justice, political science, and gerontology. SPSS is utilized for data analysis.

SOCI 4316. Methods of Sociological Research. 3 Credit Hours.
(WI) Learn the principles and methods of social research, including research design, methods of observation, questionnaires, and interviews. Apply qualitative and quantitative techniques of inference, analysis, and research report writing, to gain practical experience in limited research studies.

SOCI 4317. Qualitative Research Methods. 3 Credit Hours.
Introduces methodological approaches corresponding to qualitative research methods, with special emphases on interviewing, observation techniques, ethnographic field-based methods, and content analysis. Prerequisite/Corequisite: SOCI 3315 or CRIJ 4316.

SOCI 4320. Social Psychology and Interaction. 3 Credit Hours.
Explore symbolic interactionism, and the influence of society, groups, culture, and other persons on the attitudes, behavior, and experiences of the individual. Prerequisite(s): None.

SOCI 4388. Sociology Problems. 1-6 Credit Hours.
Engage in independent reading, research and discussion on selected topics in sociology. Entry into this course will be arranged with the sociology counselor.

SOCI 4389. Special Topics in Sociology. 1-3 Credit Hours.
Engage in independent reading, research, discussion, and paper writing under personal direction of instructor. May be taken more than once for credit if topics vary. Prerequisite(s): May be taken more than once for credit if topics vary.

SOCI 5304. Sociology of Religion. 3 Credit Hours.
An critical examination of religions and religious phenomena from the perspectives, theories, and methods of sociology. Reviews the major works of classical theorists such as Durkheim, Weber, and Marx, and recent theorists such as Berger and Stark.

SOCI 5305. Theoretical Sociology. 3 Credit Hours.
Study the historical development of sociological theory by examining the major works of classical, contemporary, postmodern and modern social theorists.

SOCI 5388. Sociology Problems. 3 Credit Hours.
Engage in independent reading, research, and discussion on selected topics in sociology, under the supervision of an instructor. May be repeated as topic varies for up to six hours of credit.

SOCI 5389. Special Topics in Sociology. 3 Credit Hours.
Explore selected topics within sociology. May be repeated as topics vary.

Social Science Courses

SOSC 3300. Social Science Proseminar. 3 Credit Hours.
(WI) Learn professional communication, advanced writing expectations, and ethics in professional writing in preparation to pursue advanced studies in the social sciences.

B.S. Nursing

OVERVIEW

The Registered Nurse (RN) to Bachelor of Science in Nursing (BSN) program at A&M-Central Texas offers a nursing education to registered nurses on the baccalaureate level, in order to serve the regional community of Central Texas, including the military and their families. Our faculty will prepare you to practice in all healthcare settings, including outpatient care, hospital settings, public health and gerontology. The BSN will give you greater opportunity for career and educational mobility.

Our program is streamlined and avoids duplication of courses as well as content completed by students with an associate's degree in nursing. The BSN program is based on The Essentials of Baccalaureate Education for Professional Nursing Practice (American Association of Colleges of Nursing, 2008) to ensure program quality.

The Nursing program is user-friendly and recognizes the demands of students balancing work with school, and can be completed in one calendar year. It is 100% online and offers opportunities for part-time or full-time study and although the program is online, students still have the opportunity to come to campus to meet with faculty as needed. Many of our classes are capped at 20 students to allow for more faculty-student interactions.
Program Level Student Learning Outcomes

The student will be able to:

1. Integrate knowledge and skills in the provision of patient-centered care from liberal education base.
2. Integrate the necessary knowledge and skills in leadership, quality improvement and patient safety necessary to provide high quality health care.
3. Integrate best practices in scholarship for translating evidence into practice.
4. Evaluate the use of nursing informatics from multiple perspectives with nursing practice.
5. Identify means by which professional nurses affect quality of health care delivery based on political, legal, ethical, and policy issues.
6. Analyze the role of the nurse in interprofessional communication and collaboration to improve patient outcomes.
7. Utilize models and theories of clinical prevention and population health to perform nursing actions which optimize health of a target population.
8. Examine professional nursing from historical and contemporary perspectives, including the philosophy and theoretical foundations that define professional nursing practice.
9. Demonstrate reasoning at the level of a baccalaureate prepared nurse pertaining to membership in the profession, provision of patient care and advocacy.

Entry Requirements

General Education and Course Requirements

A&M-Central Texas is an upper-level university, therefore, the core curriculum/general education courses and non-nursing courses must be taken at another institution. Core curricula may also be accepted from other institutions.

Admissions Requirements

Program Admissions Requirements

• Admission to A&M-Central Texas (http://catalog.tamuct.edu/undergraduate-information/undergraduate-admission-requirements/);
• Have a current unencumbered Texas Registered Nurse’s (RN) license or of a Compact State, or be in the last semester of an Associates of Nursing Degree program;
• Have completed the non-nursing courses for the BSN degree, exception, may have six (6) hours remaining,
• Have earned a grade of "C" or higher in all courses leading to a BSN degree,
• Complete an Application to the Nursing Program form,
• If employed as a registered nurse, have a reference form completed by a supervisor. If not employed, have a clinical faculty member complete the form.

How to Apply for Admissions

• Submit the Application to the Nursing Program.
• Submit a reference form found in the Nursing Handbook. The reference form validates safe and recent practice experience as a registered nurse within the last three years prior to acceptance. Or, submit a form from a nursing faculty member if graduation was in the past year and you have not practiced as a registered nurse. Alternatively, applicants may complete a RN refresher course.
• Submit unofficial transcript(s) for review in applying to the program. Official transcript(s) must be submitted to the university for all courses to be transferred in for credit. Provide official copies of transcript(s) from each previously attended college or university. See the "Official College Transcripts (http://catalog.tamuct.edu/undergraduate-information/official-college-transcripts/)" page for additional details.
• Prior to enrolling in the program meet with faculty advisor in the Department of Nursing to develop a Student Educational Plan, applicants must complete all non-nursing courses listed in the degree requirements. Exception of up to six semester credit hours may be made in consultation with program faculty.
• International applicants and applicants with foreign credentials must adhere to additional requirements (p. 24).

Progression Policy

Students may progress in the program when the following conditions are met:

• Successful completion of required nursing and non-nursing courses with a minimum grade of C. Students who earn below a grade of C on any two courses in the nursing program will not be eligible for progression.
• Transfer students from other programs must complete a minimum of 30 hours from A&M-Central Texas.
• Maintenance of an unencumbered license to practice as a Registered Nurse in the state of Texas (or Compact State) through the duration of the program.
• Students must request permission to repeat a nursing course due to failure or withdrawal.

A. A letter of petition must be written to the nursing department chair and must include:

1. The reason for withdrawal or failure to successfully complete the course.
2. Steps which the student will take to ensure successful completion of the course when repeated.
3. Date corrective steps will be completed.

B. The department chair will take into consideration:

1. The student’s overall academic performance, GPA on required courses, and review the transcript for a pattern of withdrawals, and the number of repeated courses.
2. The student’s plans for corrective action and reasons for failure. The feasibility of the plan is also assessed.
3. The student file, to determine adherence to the program standards and performance in the present or previous courses.

C. If permission is granted to repeat a course, it will be on a space available basis.

Readmission Policy

• Students who have an interruption—as defined as an inability to achieve a passing grade, withdrawal, or non-enrollment—must gain permission before taking any nursing course.
• The Division of Student Affairs, along with the Nursing Program Director, evaluates the student's request for readmission or to retake any nursing course.
• The student’s general academic history, nursing course grades, and potential for success will be considered. Readmission or permission to retake any course is based on professional judgment and space availability.

• Students who withdraw from a course or courses or receive a grade below a “C” should follow the procedure in the Progression Policy.

• After lapse of one long semester, students wishing to return to the program

   A. Must notify the Nursing Program Director
   B. Must submit a physician’s clearance in order to return to classes if the absence was due to a health problem
   C. Must meet with a nursing faculty member prior to registering to develop a degree completion plan
   D. If the student has been out two long semesters or more, the student must also:
      1. Submit an updated Application to the Nursing Program
      2. Adhere to the most current catalog requirements
      3. Fulfill any requirements specified by the Nursing Program Director
      4. Complete the Nursing Program within five (5) calendar years from their initial enrollment

Bachelor of Science - Nursing Program Requirements
Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan.

<table>
<thead>
<tr>
<th>Code</th>
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<td>or SPCH 1315</td>
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| Second Year   |                                                         |              |
| Fall          |                                                         |              |
| SOCI 1301     | Introduction to Sociology                               | 3            |

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<td>Microbiology for Non-Science Majors (Lecture + Lab)</td>
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<tr>
<td>PSYC 2301</td>
<td>General Psychology (CORE REQ 080)</td>
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| Spring        |                                                         |              |
| CORE REQ Government/Political Science - 070 |                              | 3            |
| PSYC 2314     | Lifespan Growth & Development (CORE REQ 090)            | 3            |
| CORE REQ Creative Arts-050 |                              | 3            |
| CORE REQ Language, Philosophy and Culture-040 |                              | 3            |

| Third Year    |                                                         |              |
| Fall          | Transfer Nursing Courses by Validation/Articulation (Minimum of 30 hours) | 30           |
|               |                                                         |              |
| Spring        | NURS 3300 Professional Role Transitions                  | 3            |
|               | NURS 3307 Health Assessment                              | 3            |
|               | NURS 3304 Nursing Research                               | 3            |
|               | NURS 3317 Pathophysiology for the Registered Nurse       | 3            |

| Fourth Year   |                                                         |              |
| Fall          | NURS 4405 Care of Individuals and Families               | 4            |
|               | NURS 3330 Nursing Care of Older Adults                    | 3            |
|               | NURS 4506 Community Health                                | 5            |
| Spring        |                                                         |              |
| NURS 4410     | Leadership and Management for the Registered Nurse       | 4            |
| NURS 4212     | Professional Issues for the Registered Nurse             | 2            |
|               | Any Level Electives (as required to reach 120 hours)     | 9            |
| Total Credit Hours |                                                         | 120          |

1 Lower Level Electives, Any Level Electives, Component Area Options, or Degree Requirements (DEG REQ) may be the FOS courses: BIOL 2421, PSYC 2301, PSYC 2314, MATH 1342, ENGL 1301, ENGL 1302 or ENGL 2311, BIOI 1322 or HECO 1322, one of the following CHEM 1405, CHEM 1406, CHEM 1407, CHEM 1411, CHEM 1412, CHEM 2423, CHEM 2425 (or the corresponding 3 credit hour lecture plus the one credit hour lab).
Courses

NURS 3300. Professional Role Transitions. 3 Credit Hours.  
(WI) Nursing is defined, especially as it relates to promotion and restoration of health. Roles of the nurse are explored, Professional nursing is examined from historical and contemporary perspectives, including the philosophy and theoretical foundations that define professional nursing practice. Students will examine personal, professional and cultural values as influences upon nursing practice. The process of critical thinking and the use of nursing informatics is examined from multiple perspectives. Prerequisite(s): ENGL 1302 or 2311 and admission into the nursing program.

NURS 3304. Nursing Research. 3 Credit Hours.  
(WI) This course is a study of basic research methodologies and an examination of the professional nurse’s role in evidence-based practice. Students employ high level critical thinking and informatics skills to explore, identify, and critically appraise the credibility of Internet sources and library electronic databases to gather relevant evidence across professions that answer questions about nursing practice. Through this examination, students increase their awareness of the impact of culture and ethics on the research process and evidence-based practice. Prerequisite(s): MATH 1342 Elementary Statistics. Pre or Co-requisite NURS 3300.

NURS 3307. Health Assessment. 3 Credit Hours.  
In this course, the concepts and principles underlying the assessment of the health status of culturally diverse individuals are presented. Emphasis is placed on reviewing and renewing cognitive, affective, and psychomotor skills to obtain health histories and discover physical and psychosocial findings in the well person. Emphasis is placed on health assessment as a systematic and organized examination that will provide accurate data to form valid nursing diagnoses and plans of care. Practicum experiences allow students to enhance comprehensive health assessment and analysis skills. Prerequisite(s) or Corequisite(s): NURS 3300.

NURS 3317. Pathophysiology for the Registered Nurse. 3 Credit Hours.  
The focus of this course is to understand the pathophysiological basis for disease processes in adults and children. Central concepts will address symptoms, treatment, and prognosis. The major direction of this course will be on clinical application of findings that underlie pathogenesis and provide a basis for evidence-based practice. The course is specifically designed to meet the needs of nursing students. Prerequisite(s) or Corequisite(s): NURS 3300.

NURS 3330. Nursing Care of Older Adults. 3 Credit Hours.  
In this course the aging process will be examined with a focus on risk reduction and disease prevention in the older adult. The concept of healthy aging will be explored. Strategies for health promotion, restoration, and maintenance of the older adult will be examined. Expected professional nurse competencies in providing and directing culturally sensitive care of the older adult across the wellness/illness continuum will be emphasized. Prerequisite(s): NURS 3307.

NURS 4212. Professional Issues for the Registered Nurse. 2 Credit Hours.  
This course provides opportunities for analysis of elements that reflect the progressive development of the role of the professional nurse. It formalizes a framework that integrates the issues of political action, socio-legal concerns, multiculturalism, and ethical models into nursing practice through the debate process. Prerequisite(s): NURS 3300 and GOVT 2305 and GOVT 2306.

NURS 4220. Professional Topics in Nursing. 2 Credit Hours.  
This course is designed to promote nationally recognized nursing specialty certification exam. After developing a plan of study approved by the nursing program director, the student will conduct an independent study in the field of nursing specialty certification under the direction of a faculty member. Evidence of exam completion will be required for credit to be awarded. Specialty certification must be in an area recognized by a national certifying body such as the the National Commission for Certifying Agencies and the Accreditation Board for Specialty Nursing Certification. Prerequisite(s): NURS 3300.

NURS 4405. Care of Individuals and Families. 4 Credit Hours.  
This course emphasizes the importance of the professional nurse’s engagement in ethical and evidence-based practice. Students examine nursing case management concepts as they apply critical thinking skills to integrate the concepts of pathophysiology, pharmacology, psychosocial behavior, and cultural competence to coordinate quality and safe care in a variety of settings. Students experience the nurse educator role as they employ teaching and learning principles and nursing informatics to initiate interventions with individuals and families that highlight health promotion activities. Practicum experiences are individualized. Prerequisite(s): NURS 3300 and SOCI 1301.

NURS 4410. Leadership and Management for the Registered Nurse. 4 Credit Hours.  
In this course, theories and principles of human behavior in organizations are examined, including an exploration of leadership roles in professional nursing practice. Students analyze concepts that reflect the progressive development of the nurse leader who applies critical thinking and information technology skills to evidence-based practice. The role of the nurse leader as an inter-professional team member is also examined. The importance of the nurse leader as a role model for continued professional growth through lifelong learning is emphasized. Issues related to political action, socio-legal concerns, cultural diversity, and ethics in professional nursing practice are explored with an emphasis on the advocacy role of the nurse. Prerequisite(s): NURS 3300, NURS 3304.

NURS 4506. Community Health. 5 Credit Hours.  
In this course, students are introduced to public/community health nursing practice and the role of systems in the care of culturally diverse populations. The role of the professional nurse as part of an inter-professional team in health promotion, disease prevention, and management of chronic health problems in community settings is explored. Students apply critical thinking and information technology skills to develop and implement evidence-based projects that positively impact the quality of life of identified populations. Practicum experiences are individualized. Prerequisite(s): NURS 3300 and NURS 4405.

Bachelor of Social Work Overview  
Social Work is a professional degree program in which courses are sequenced and built upon the successful completion of prerequisites. Eligibility to take some courses is based on formal admission to the Social Work major, which requires meeting requirements over and above those required for admission to the University.

Negotiating the Social Work program requirements for an on-time graduation is a complex process that is best done with the help of an academic advisor. Please contact the Social Work Department for an appointment with one of our advisors as soon as you enter the University to map out a plan of study.
The Social Work Program is accredited by the Council on Social Work Education.

Program Level Student Learning Outcomes
The student will be able to:

1. Demonstrate Ethical and Professional Behavior.
2. Engage Diversity and Difference in Practice.
4. Engage In Practice-informed Research and Research-informed Practice.
5. Engage in Policy Practice.
6. Engage with Individuals, Families, Groups, Organizations, and Communities.
7. Assess Individuals, Families, Groups, Organizations, and Communities.
8. Intervene with Individuals, Families, Groups, Organizations, and Communities.
9. Evaluate Practice with Individuals, Families, Groups, Organizations, and Communities.

Entry Requirements
Applying to the A&M-Central Texas B.S.W. Program
Students enrolling and declaring a major in the A&M-Central Texas B.S.W. Program may apply and gain acceptance for admission once they have completed specific criteria, as follows:

Applying to the Major
A&M-Central Texas B.S.W. students must follow a clear application process to apply for admission to the program. The process includes:

- Admission to A&M-Central Texas;
- Declaration of social work as their major, which includes initial advisement with a faculty advisor;
- Enrollment in or completion of the three Foundation Level courses: Methods and Skills of Interviewing, Introduction to Social Work, and Social Work with Diverse Populations;
- Have a 2.5 overall GPA
- Have a C or better in all social work courses
- Must attend the New Social Work Student Orientation (held the first Friday of every semester), at which they receive the Social Work Student Handbook and appropriate forms to complete;
- Have scores of three (3) or higher on the Rubric for Assessing Professional Behaviors or demonstrating the ability to attain scores of three (3) or higher throughout the program.
- Submit all materials by April 15, July 15, or November 15.

Please pay close attention to the deadlines. Materials submitted after the 15th will be placed with the next semester’s applications.

Social Work Program Admission Requirements
Nondiscrimination Policy
All social work majors must apply for acceptance into the B.S.W. Program. No person shall be discriminated against for reasons of race, color, sex, religion, national origin, age, (dis)ability, citizenship, veteran status, gender identity/expression, or sexual orientation. The B.S.W. Program is committed to having a diverse student population.

Acceptance to the Major
Once the application criteria are met, to be accepted into the B.S.W. Program, students must:

- Complete the three Foundation Level sequence courses;
- Have a 2.5 overall GPA;
- Have a "C" or better in all social work courses;
- Attend the New Social Work Student Orientation (held the first Friday of every semester), at which time they will receive and review the Bachelor of Social Work Program Student Handbook and appropriate forms for completion;
- Demonstrate the ability to attain high academic and professional standards as outlined in the B.S.W. Program Student Handbook, which includes
  - having an overall GPA of 2.5 or higher and having a grade of "C" or better in all social work courses, and
  - having scores of 3 or higher on the Rubric for Assessing Professional Behaviors (RAPB; see Appendix E) or demonstrating the ability to attain scores of 3 or higher throughout the program;
- Be willing to discuss with faculty any legal or other concerns that may impede the student's successful placement at a field agency (such as a legal or criminal background) and, if necessary, complete a Corrective Action Agreement (see the B.S.W. Program field manual for more information on field admission procedures).

Once students demonstrate eligibility to apply to the major, they compile all components for submission as outlined in the application procedures. Students have the ability to work with the program's administrative assistant to ensure all documents are submitted appropriately. All department faculty members review the application for eligibility.

Once each faculty member reviews the application, they have the option of providing one of these recommendations:

- Admit Unconditionally
- Interview Needed
- Deny Admission.

The category of Admit Unconditionally provides a student with immediate admission to the program without conditions, as all criteria have been met. The Interview Needed designation is indicated when students have had a previous criminal background, mental health hospitalization, substance abuse treatment, a concern based on the program's Code of Conduct, any scores below 3 (average) on the Rubric for Assessing Professional Behaviors, or concerns have been identified regarding the information provided in the student's narrative essay in the application. The faculty conduct interviews with the student in order to make a determination regarding program admission. Students denied admission may reapply for admission once the criteria are met.

NOTE: The applicant is considered on the basis of academic performance and commitment to and suitability for generalist social work practice. Emotional and professional readiness are prerequisites. These include demonstrated emotional maturity and self-awareness in areas such as the ability to effectively manage current life stressors, the ability to reflect on personal strengths and areas for growth/development, and willingness to receive feedback and supervision in a positive manner throughout enrollment in the program.

Students must also demonstrate the following professional behaviors, including but not limited to:
• Fitting well within the social work profession and the generalist framework for undergraduate social work education;
• Upholding ethical principles as defined by the NASW Code of Ethics, Texas social work licensing criteria, the A&M-Central Texas B.S.W. Program Code of Conduct, A&M-Central Texas student rights and responsibilities delineated in the University Student Handbook;
• Advocating for themselves and others in a professional manner;
• Using proper channels for conflict resolution;
• Demonstrating respect for the confidentiality and rights of others;
• Demonstrating accountability in turning in assignments on time and maintaining a good attendance record in classes.

Bachelor of Social Work Program Requirements
Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan. This program may require summer coursework.

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<td><strong>First Year</strong></td>
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<td><strong>Fall</strong></td>
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<td>CORE REQ Language, Philosophy, and Culture (040)</td>
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<td>Social Work with Diverse Populations</td>
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<td>Human Behavior and Social Environment I</td>
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<td>SOWK 3311</td>
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<td><strong>Total Credit Hours</strong></td>
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1 Lower Level Electives, Any Level Electives, Component Area Options, or Degree Requirements (DEG REQ) may consist of the FOS courses: SOCW 2361, SOCW 2362, SOCI 1306, MATH 1342 or PSYC 2317, SOCW 2389.

2 A summer semester may be required to meet degree requirements and the coursework which leads up to the field placement courses.

Courses
SOWK 3300. Introduction to Social Work. 3 Credit Hours.
Examine the profession of social work, its historical development, values, ethics, and various fields of practice, with an emphasis on the generalist perspective and populations at risk. 30 hours of volunteer work with a non-profit community agency is required as part of the course.
SOWK 3301. Methods and Skills of Social Work. 3 Credit Hours.
Study the Generalist Social Work Practice Model. Develop social work skills in the principles of conducting a helping interview, initial client contact, attending and listening, empathetic responses, exploration and elaboration, questioning, gaining cooperation, self-disclosure, and termination. Understand issues of problem-solving with diverse populations and persons from different cultural backgrounds, and examine ethical issues of helping relationships.

SOWK 3302. Social Welfare in the United States. 3 Credit Hours.
Study human services in the United States and how they have developed over time. Special Emphasis on services and programs directed at the most vulnerable populations in our society. Race, ethnicity, gender, and socioeconomic status are considered in an effort to understand the need for and eligibility for various human services and social welfare programs.

SOWK 3303. Social Work with Diverse Populations. 3 Credit Hours.
Examine theoretical, political, historical, cultural, and economic issues related to diverse populations. Special emphasis on social work practice with oppressed populations, societal forces that promote discriminatory and oppressive values, beliefs, and attitudes.

SOWK 3304. Human Behavior and Social Environment I. 3 Credit Hours.
Use systems theory as organizing perspective to examine the biopsychosocial and spiritual factors influencing human development. Analyze cultural, socioeconomic, and structural factors affecting human functioning, and their relationship to and implications for social work practice.

SOWK 3305. Biological Foundations of Social Work Practice. 3 Credit Hours.
Explore issues related to human biological functioning as applied to social work practice. Emphasis on the functioning of the human body across the lifespan, healthy living and prevention of illness, and illness and disabilities (physical and mental) that social workers encounter in clients.

SOWK 3310. Human Behavior and Social Environment II. 3 Credit Hours.
Explore issues related human biological functioning as applied to social work practice. Emphasis on theories and knowledge about the range of social systems in which individuals live and the ways in which systems deter people from achieving well-being, including values and ethical issues related to bio-psycho-social theories. Prerequisite(s): SOWK 3304.

SOWK 3311. Generalist Practice I: Micro Systems. 3 Credit Hours.
Examine theories and methodologies needed for generalist social work practice with individuals and small groups. Evaluate the value base of the social work profession and basic practice concepts for understanding a variety of intervention models in diverse settings. Prerequisite(s): Admission to the Social Work Program and SOWK 3301.

SOWK 3315. Writing for Professional Social Work. 3 Credit Hours.
Social work is a field of practice that places heavy demands for professional-quality writing skills on its members. This course should help improve each student's professional writing ability. Prerequisite(s): ENGL 1301.

SOWK 4300. Social Welfare Policy. 3 Credit Hours.
(1) Study social welfare as society's response to the needs of individuals, groups, and communities. Examine the history of policy development reflecting society's changing values. Analyze policy to determine impact on various systems, including populations at risk, and explore the role of social policy in promoting social justice and social change. Prerequisite(s): SOWK 3302.
SOWK 4388. Social Work Problems. 1-6 Credit Hours.
Engage in independent reading and research on selected topics within social work. Entry into the course will be arranged by faculty member teaching the course.

SOWK 4684. Social Work Field Placement I. 6 Credit Hours.
Integrate theory and professional skill in a supervised, social work agency-based field placement. A minimum of 225 hours required to be completed and participation in a three-hour-per-week seminar. Prerequisite(s): Acceptance into the field program and completion of SOWK 3301, SOWK 3303, SOWK 3311 and SOWK 3304. Internship fee: $125.

SOWK 4685. Social Work Field Placement II. 6 Credit Hours.
Integrate theory and professional skill in a supervised, social work agency-based field placement. Special emphasis on generalist social work practice and on the interrelationships among human behavior, social policy, research, and practice. A minimum of 225 hours required to be completed and participation in a three-hour-per-week seminar. Prerequisite(s): Admission to the major, SOWK 4684 with a grade of C or better. It is advised that SOWK 4324 be taken as a co-requisite. Internship fee: $125.

SOWK 4932. Social Work Field Instruction. 9 Credit Hours.
Integrate social work theory and professional skill within a supervised, agency-based generalist social work setting. A minimum of 450 hours required to be completed. Prerequisite(s): Acceptance into the field program, SOWK 4321. Corequisite SOWK 4333. May not be taken for credit if SOWK 4684 or SOWK 4685 has been completed. Internship fee: $175.

B.B.A. Accounting

OVERVIEW
A bachelor's degree in Accounting prepares you for the graduate program in accounting, internships, or entry level careers that do not require licensure as a Certified Public Accountant (CPA). Throughout this program, you will experience faculty committed to the pursuit of excellence in teaching and students' professional development.

Students completing both the Bachelor of Business Administration in Accounting and the Master of Science in Accounting meet the Texas State Board of Public Accountancy requirements to sit for the CPA Exam.

Program Level Student Learning Outcomes
The student will be able to:

1. Demonstrate knowledge proficiency in the core business disciplines and integrate across multiple business disciplines.
2. Make decisions through business data analysis.
3. Prepare written communications appropriate for the accounting profession.
4. Demonstrate the application of technology used in the accounting profession.
5. Apply Generally Accepted Accounting Principles, Generally Accepted Auditing Standards, and Internal Revenue Code Rules and Regulations to appropriate accounting or tax problems.

Bachelor of Business Administration - Accounting Program Requirements
Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan.

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<thead>
<tr>
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<td>BCIS 1305 Business Computer Applications (CORE REQ 090)</td>
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<tr>
<td>CORE REQ Government/Political Science (070)</td>
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<tr>
<td>ACCT 3302 Cost Accounting</td>
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<td>ACCT 3303 Intermediate Accounting I</td>
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<td>ACCT 3307 Writing for Accountants</td>
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<tr>
<td>FIN 3300 Introduction to Financial Planning</td>
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</tbody>
</table>
This course is an introduction to the fundamental concepts of financial 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.

**ACCT 3300. Accounting Concepts. 3 Credit Hours.**
Learn 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. Used to provide for students without a previous accounting background. (Meets requirements for Accounting I.).

**ACCT 3301. Analysis - Using Spreadsheets. 3 Credit Hours.**
Learn theory and application of microcomputer spreadsheet technology applied in accounting, finance, management, and other business disciplines. Stimulate creative initiative and to develop basic skills in performing common business tasks. Credit for both CIS 3301 and ACCT 3301 will not be awarded. Prerequisite(s): ACCT 2301.

**ACCT 3302. Cost Accounting. 3 Credit Hours.**
Learn accounting for material, labor, and manufacturing expenses in both job order and process cost systems. Special emphasis will be given to distribution of service department cost and costing of byproducts and joint products. Prerequisite(s): ACCT 3301 or ACCT 2302.

**ACCT 3303. Intermediate Accounting I. 3 Credit Hours.**
Study the environment of accounting, development of standards, basic theory, financial statements, worksheets, and the application of generally accepted accounting principles for the business enterprise with emphasis on corporations. Prerequisite(s): ACCT 3300 or ACCT 2301 or permission of department chair.

**ACCT 3304. Intermediate Accounting II. 3 Credit Hours.**
Continue the study of Intermediate Accounting with a special emphasis on generally accepted accounting principles as applied to the business enterprise. Prerequisite(s): ACCT 3303 or permission of department chair.

**ACCT 3305. Governmental Accounting. 3 Credit Hours.**
Learn budgeting, accounting, and financial reporting principles and practices for governmental and other not-for-profit entities. Prerequisite(s): ACCT 3303 or permission of department chair.

**ACCT 3307. Writing for Accountants. 3 Credit Hours.**
(WI) Learn how to improve communication skills for those entering the accounting profession. Study written communication including letter writing, memos, emails, reports, employment resumes, and writing for publication. Special emphasis on organization of thought, critical thinking, and accounting research.

**ACCT 3308. Managing Accounting. 3 Credit Hours.**
Study the uses of accounting information by management. Accounting procedures and reports essential to management are emphasized, as are cost analysis, cost control, budgeting, and controllership. Prerequisite(s): ACCT 2301 or permission of department chair. Course cannot be counted as part of a degree program for an accounting major.

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### Courses

**ACCT 2301. Principles of Financial Accounting. 3 Credit Hours.**

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.

**ACCT 2302. Principles of Managerial Accounting. 3 Credit Hours.**

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.

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1. Lower Level Electives, Any Level Electives, Component Area Options, or Degree Requirements (DEG REQ) may consist of the FOS courses: MATH 1324, ECON 2301, ECON 2302, BCIS 1305, ACCT 2301, ACCT 2302, BUSI 1301, BUSI 2305.
ACCT 3310. Accounting Information Systems. 3 Credit Hours.
Study the design and implementation of complex accounting information systems. Understand the traditional accounting model and its relationship to each type of accounting information system, including accounts receivable, inventory control, cost accounting, operational budgeting, and capital budgeting. Special emphasis on key elements of a well-designed management control system. Prerequisite(s): ACCT 2301.

ACCT 3387. Cooperative Education. 1-3 Credit Hours.
Integrate academic study with work experience that is relevant to a major or minor. Two-semester minimum requirement 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. Cooperative Education advisor will supervise and assign the final grades. Students may participate in the Cooperative Education but will earn only a maximum of 6 hours credit toward a degree. Prerequisite(s): 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 permission of department chair. Field experience fee $75.

ACCT 4301. Intermediate Accounting III. 3 Credit Hours.
Study financial statement analysis and accounting topics related to financial statement presentation and disclosure. Prerequisite(s): ACCT 3304 or permission of department chair.

ACCT 4303. Advanced Accounting. 3 Credit Hours.
Analyze special phases of partnership accounting, joint ventures, consignments, installment sales, statement of affairs and accounting for insolvent concerns, and business combinations. Prerequisite(s): ACCT 4301 or concurrent registration.

ACCT 4305. Federal Tax Accounting I. 3 Credit Hours.
Study current income tax law and regulations with special emphasis on income tax legislation, treasury and court decisions, departmental rulings, income tax problems and returns, social security, and self-employment taxes. Prerequisite(s): ACCT 2301 and junior standing. Credit for both ACCT 4305 and FIN 4305 will not be awarded.

ACCT 4306. Federal Tax Accounting II. 3 Credit Hours.
Continue the study of current income tax law and tax accounting procedures. Learn about preparation of income tax returns for partnerships and corporations. Prerequisite(s): ACCT 4305 or permission of department chair. Credit for both ACCT 4306 and FIN 4306 will not be awarded.

ACCT 4323. Ethics for Accountants. 3 Credit Hours.
Learn auditing and ethical responsibilities for auditors and other accountants in both public and private practice. Study generally accepted auditing standards, the standard audit report, legal responsibilities of accountants, the Code of Professional Conduct for accountants, independence, and objectivity. Special emphasis on case studies involving ethical reasoning, ethical decision making. Prerequisite(s): ACCT 3304.

ACCT 4324. Auditing. 3 Credit Hours.
Learn procedures used by auditors and auditing practitioners to gather and evaluate information and report on their findings. Special emphasis on evaluation of internal control, planning an audit or other engagement, compliance testing, substantive testing, statistical sampling, evaluation of findings, and preparation of reports. Prerequisite(s): ACCT 3304.

ACCT 4335. Financial Statement Analysis. 3 Credit Hours.
Learn the use of financial statements to analyze the position of a firm. Study analysis techniques and limitations imposed by generally accepted accounting principles. Prerequisite(s): ACCT 3303.

ACCT 4350. Management Information Systems. 3 Credit Hours.
(WI) Study management issues related to business information systems designed to meet the informational needs of the various business subsystems. Special emphasis on the concepts of systems development, security, privacy and ethics associated with information systems. Credit will be awarded for only one of the following courses: ACCT 4350, CIS 4350, or MGMT 4350. Prerequisite(s): COSC 1301 or 3 hours of Advanced CIS or ACCT 3301 or CIS 3301 and junior standing.

ACCT 4357. Accounting Theory. 3 Credit Hours.
Study of the generally accepted accounting rules and principles that govern the practical application of accounting methods. Prerequisite(s): ACCT 3303 and ACCT 3304.

ACCT 4388. Accounting Problems. 1-3 Credit Hours.
Study of selected problems in accounting. Engage in independent research, reading and discussions under the personal direction of the instructor; topics may vary according to student need. May be repeated with permission of department chair. Prerequisite(s): Senior standing and permission of department chair.

ACCT 4389. Special Topics in Accounting. 3 Credit Hours.
Study current issues and developments in accounting. Prerequisite(s): Permission of instructor.

ACCT 5090. Comprehensive Examination. 0 Credit Hours.
Study and take the accounting examination for Non-thesis students. Register for the comprehensive examination during final semester of graduate coursework, or upon permission of advisor. All comprehensive examinations will be written, but an oral component may also be required. A maximum of three attempts will be allowed. Thesis student do not take this examination.

ACCT 5300. Foundations of Accounting. 1 Credit Hour.
Learn basic knowledge of accounting necessary to begin the MBA program. Appropriate for students who have not had prior accounting courses, or who need a refresher course, prior to their MBA studies. Study the accounting process, accounting cycle, preparation of the basic financial statements in corporate annual reports, analysis of corporate financial statements using ratio analysis, the study of cost behavior, and cost-volume-profit analysis.

ACCT 5303. Accounting and Management. 3 Credit Hours.
Study accounting as related to problems of making business and economic decisions. Learn both financial and managerial accounting. MS-ACC majors may not take this course for credit. Prerequisite(s): Required accounting leveling or permission of instructor.

ACCT 5305. Accounting Theory. 3 Credit Hours.
Study the theory of accounting as it has developed in the economy of the United States. Particular emphasis is on concepts, income measurement, and valuation of assets, including valuation and measurement of equities. Application of accounting theory to contemporary problems is analyzed with cases and research papers on selected areas.

ACCT 5310. Advanced Accounting Systems. 3 Credit Hours.
Comprehensive study of computerized accounting systems. Study design, implementation, operation, control and audit techniques of accounting information.

ACCT 5315. Business Law for Accountants. 3 Credit Hours.
Study current business law topics which concern accountants in governing their practice and working with clients.
ACCT 5320. Corporate Tax. 3 Credit Hours.
Analyze formation and capital structures, partial liquidations, S Corporations, accumulated earnings tax, and personal holding companies.

ACCT 5330. Current Topics in Auditing. 3 Credit Hours.
Explore current topics in auditing.

ACCT 5335. Estate Planning. 3 Credit Hours.
Study federal estate and gift taxation, as well as advanced family tax planning. Explore issues in taxation of decedent’s estate and lifetime gifts, and valuation of properties subject to gift and estate taxes.

ACCT 5340. Ethics in Accounting. 3 Credit Hours.
Study of ethics as it relates to problems in business and economic decisions. Explore integration of ethical reasoning, objectivity, independence, and other core values important for the development of a professional accountant. Analyze ethical lapses that have occurred in business and the accounting profession, with readings, problems, and cases requiring use of business and accounting data to evaluate the ethical decision process.

ACCT 5345. Financial Statement Analysis. 3 Credit Hours.
Learn an analytical approach to the application of finance and accounting principles relevant to the analysis of financial statements.

ACCT 5350. Forensic Accounting. 3 Credit Hours.
Learn the complete cycle of investigative auditing. Examine business, through study and evaluation of internal control, and corroborative evidence on the details of account balances. Explore flow-charts, test planning, use of statistical samples, computer controls and management audits. Gain experience through team performance on an extended case audit.

ACCT 5355. International Accounting. 3 Credit Hours.
Examine accounting issues unique to multinational enterprises and international business activities.

ACCT 5360. Information Technology Audit. 3 Credit Hours.
Learn controls, issues and audit techniques to explore the use of a computer as an auditing tool. Utilize generalized audit software currently used in auditing practices. Particular emphasis on computer fraud, security measures and controls in advanced online, teleprocessing systems.

ACCT 5365. Accounting Research Seminar. 3 Credit Hours.
Explore accounting topics in an online environment. Emphasis is on basic accounting research in the areas of accounting theory, accounting practice, and other accounting topics in preparation for research needs encountered in the business environment and on the CPA exam. Stimulate creative initiative in performing accounting tasks and develop basic skills necessary to effectively research accounting and other topics which may be encountered in a business environment.

ACCT 5370. Auditing Seminar. 3 Credit Hours.
Analyze current issues and research in auditing, attestation, and financial disclosures.

ACCT 5375. Tax Research Seminar. 3 Credit Hours.
Develop the technical and research skills needed to address contemporary tax issues. Study tax issues, formulate research questions and develop the research skills needed to address them. Special emphasis on major tax services, evaluating relevant authorities and communicating findings in a professionally written research memorandum, familiarization of federal tax policies and procedures, and the authorities that govern tax practice.

ACCT 5388. Accounting Problems. 1-3 Credit Hours.
Study of selected problems in accounting. Engage in independent research, reading and discussions under the personal direction of the instructor, topics may vary according to student need. Prerequisite(s): Permission of department chair.

ACCT 5389. Special Topics in Accounting. 3 Credit Hours.
Study selected accounting topics of current importance to business management. May be repeated once for credit when topics vary.

ACCT 5395. Current Topics in Accounting. 3 Credit Hours.
Explore selected topics of new or current interest in financial accounting.

B.B.A. Computer Information Systems

OVERVIEW

The Bachelor of Business Administration (BBA) in Computer Information Systems at Texas A&M University-Central Texas provides a foundation in critical thinking and analysis of systems development, including training to prepare for diverse business information technology careers. The program is designed to enrich student's problem-solving skills, data communications capabilities, and ability to analyze, design, and build systems solutions to address the growing information needs of the organization. Studies will focus on the requisite technical and business knowledge and also stress oral and written business communication, global business awareness, and ethical behavior.

Depending on career preference, students can choose from four areas of specialization: Business Analytics, Cybersecurity, Management & Networking and Software Engineering & Database Design.

Program Level Student Learning Outcomes

The student will be able to:

1. Analyze business requirements and design appropriate information Systems solutions.
2. Identify and evaluate Information Systems solutions for business situations and select ethical and optimal solutions to meet the organization's needs.
3. Apply general knowledge and skills related to data communications and infrastructure solutions to an organization's Information Systems needs.
4. Apply general knowledge and skills related to IT security and risk management in an organization's Information Systems needs.
5. Apply general knowledge and skills related to software application solutions to an organization's Information System needs.
6. Apply general knowledge and skills related to database solutions to an organization's Information System needs.

Bachelor of Business Administration - Computer Information Systems Without Concentration Program Requirements

Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan.
### Bachelor of Business Administration - Computer Information Systems Business Analytics Concentration Program Requirements

Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan.

#### Code | Title | Credit Hours
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| **First Year** | **Fall** |  |
| ENGL 1301 | Composition I (CORE REQ 010) | 3 |
| CORE REQ Mathematics (020) | 3 |
| CORE REQ Life and Physical Science (030) | 3 |
| CORE REQ Creative Arts (050) | 3 |
| ACCT 2301 | Principles of Financial Accounting (CORE REQ 090) |  |
| **Spring** |  |
| CORE REQ Language, Philosophy, and Culture (040) | 3 |
| CORE REQ Life and Physical Science (030) | 3 |
| ECON 2301 | Principles of Macroeconomics (CORE REQ 080) | 1 |
| ACCT 2302 | Principles of Managerial Accounting (DEG REQ) | 1 |
| COSC 1301 | Introduction to Computing (DEG REQ) | 1 |
| or BCIS 1305 |  |
| or CIS 3300 |  |
| **Second Year** | **Fall** |  |
| ENGL 1302 | Composition II (CORE REQ 010) | 3 |
| HIST 1301 | United States History I (CORE REQ 060) | 3 |
| GOVT 2305 | Federal Government (CORE REQ 070) | 3 |
| ECON 2302 | Principles of Microeconomics (CORE REQ 090) | 1 |
| SPCH 1311 | Introduction to Speech Communication |  |
| or SPCH 1315 | Public Speaking |  |
| or SPCH 1321 | Business & Professional Communication |  |
| **Spring** |  |
| HIST 1302 | United States History II (CORE REQ 060) | 3 |
| GOVT 2306 | Texas Government (CORE REQ 070) | 3 |
| CIS 3303 | Programming Logic and Design | 3 |
| or COSC 1315 | Fundamentals of Programming |  |
| Any Level Elective | 1  |
| Any Level Elective | 1  |
| **Third Year** | **Fall** |  |
| COSC 1320 | C Programming I (DEG REQ) | 3 |
| or COSC 1336 | Programming Fundamentals I |  |
| or CIS 3330 | C++ Programming |  |
| or CIS 3331 | Visual Basic Programming |  |
| **Fourth Year** | **Fall** |  |
| CIS 3341 | Information Technology Security and Risk Management | 3 |
| CIS 3365 | System Analysis and Design | 3 |
| CIS 4351 | IS Project Management | 3 |
| CIS 4301 | Database Theory and Practices | 3 |
| BUSI 3344 | Introduction to the Global Business Environment | 3 |
| **Spring** |  |
| CIS 4360 | Strategic Information Systems | 3 |
| BUSI 4359 | Business Strategy | 3 |
| Upper-Level CIS Elective | 3 |
| Upper-Level CIS Elective | 3 |
| Any Level CIS Elective | 3 |
| **Total Credit Hours** | 120 |

1 Lower Level Electives, Any Level Electives, Component Area Options, or Degree Requirements (DEG REQ) may consist of the FOS courses: MATH 1324, ECON 2301, ECON 2302, BCIS 1305, ACCT 2301, ACCT 2302, BUSI 2301, BUSI 2305.
### Bachelor of Business Administration - Computer Information Systems

Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan.

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1. Lower Level Electives, Any Level Electives, Component Area Options, or Degree Requirements (DEG REQ) may consist of the FOS courses: MATH 1324, ECON 2301, ECON 2302, BCIS 1305, ACCT 2301, ACCT 2302, BUSI 1301, BUSI 2305.
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**Bachelor of Business Administration - Computer Information Systems Management and Networking Concentration Program Requirements**

Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan.

**Code** | **Title** | **Credit Hours**
---|---|---
ENGL 1301 | Composition I (CORE REQ (010) | 3
CORE REQ Mathematics (020) | 3
CORE REQ Life and Physical Science (030) | 3
CORE REQ Creative Arts (050) | 3
ACCT 2301 | Principles of Financial Accounting (CORE REQ (090) | 3

**First Year**

**Fall**

ENGL 1301 | Composition I (CORE REQ (010) | 3

CORE REQ Mathematics (020) | 3
CORE REQ Life and Physical Science (030) | 3
CORE REQ Creative Arts (050) | 3
ACCT 2301 | Principles of Financial Accounting (CORE REQ (090) | 3

**Spring**

CORE REQ Language, Philosophy, and Culture (040) | 3

**Bachelor of Business Administration - Computer Information Systems Management and Networking Concentration Program Requirements**

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ENGL 1301 | Composition I (CORE REQ (010) | 3
CORE REQ Mathematics (020) | 3
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ACCT 2301 | Principles of Financial Accounting (CORE REQ (090) | 3

**First Year**

**Fall**

ENGL 1301 | Composition I (CORE REQ (010) | 3

CORE REQ Mathematics (020) | 3
CORE REQ Life and Physical Science (030) | 3
CORE REQ Creative Arts (050) | 3
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**Spring**

CORE REQ Language, Philosophy, and Culture (040) | 3

**Bachelor of Business Administration - Computer Information Systems Management and Networking Concentration Program Requirements**

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ENGL 1301 | Composition I (CORE REQ (010) | 3
CORE REQ Mathematics (020) | 3
CORE REQ Life and Physical Science (030) | 3
CORE REQ Creative Arts (050) | 3
ACCT 2301 | Principles of Financial Accounting (CORE REQ (090) | 3

**First Year**

**Fall**

ENGL 1301 | Composition I (CORE REQ (010) | 3

CORE REQ Mathematics (020) | 3
CORE REQ Life and Physical Science (030) | 3
CORE REQ Creative Arts (050) | 3
ACCT 2301 | Principles of Financial Accounting (CORE REQ (090) | 3

**Spring**

CORE REQ Language, Philosophy, and Culture (040) | 3
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Bachelor of Business Administration - Computer Information Systems Software and Database Design Concentration Program Requirements

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Texas A&M University Central Texas 2020-2021

ECON 2301 Principles of Macroeconomics (CORE REQ (080) 1) 3
ACCT 2302 Principles of Managerial Accounting (DEG REQ) 1 3
COSC 1301 Introduction to Computing (DEG REQ) 1 3
or BCIS 1305 or CIS 3300 Business Computer Applications Computer Technology and Impact

Second Year

Fall
ENGL 1302 Composition II (CORE REQ (010) 3
HIST 1301 United States History I (CORE REQ (060) 3
GOVT 2305 Federal Government (CORE REQ (070) 3
ECON 2302 Principles of Microeconomics (CORE REQ (090) 1 3
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Spring
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GOVT 2306 Texas Government (CORE REQ (070) 3
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COSC 1315 Fundamentals of Programming
or CIS 3303 Programming Logic and Design
BUSI 2301 Business Law
or BUSI 3332 Legal Environment of Business

Third Year

Fall
CIS 3302 Introduction to Business Analytics 3
BUSI 3344 Introduction to the Global Business Environment 3
FIN 3301 Financial Management I 3
MKTG 3301 Marketing 3
MGMT 3301 Principles of Management 3
Spring
CIS 3347 Data Communications and Infrastructure 3
CIS 3360 Ethics in Computing 3
CIS 3340 Advanced C++ Programming 3
or CIS 3341 Advanced Visual Basic Programming
or CIS 3342 Advanced Java Programming

or CIS 3343 C# Programming for Windows and the Web
CIS 4341 Information Technology Security and Risk Management 3
BUSI 3311 Business Statistics 3

Fourth Year

Fall
CIS 3351 Data Structures 3
CIS 3365 System Analysis and Design 3
CIS 4301 Database Theory and Practices 3
CIS 4350 Management Information Systems 3
CIS 4351 IS Project Management 3

Spring
CIS 4340 Algorithm Design and Analysis 3
CIS 4352 Structured Query Language 3
CIS 4360 Strategic Information Systems 3
BUSI 4359 Business Strategy 3
CIS 4379 Software Engineering for E-Business 3

Total Credit Hours 120

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Courses

CIS 3300. Computer Technology and Impact. 3 Credit Hours.
Explores computer technology with special attention to its impact on home, work, and school. Many topics are presented: hardware and software fundamentals, essential applications, telecommunications, internet, artificial intelligence, programming, and the future of these technologies. Students work with word processing, spreadsheet, database, and presentation software; other applications; and a programming language. No prior computer experience necessary.

CIS 3301. Business Analysis with Spreadsheets. 3 Credit Hours.
Examine theory and application of microcomputer technology applied in accounting, finance, management, and other business disciplines. Develop creative initiative, and study basic analytical skills in performing common business tasks. Credit for both CIS 3301 and ACCT 3301 will not be awarded.

CIS 3302. Introduction to Business Analytics. 3 Credit Hours.
Examine theory and application of business analytics applied in accounting, finance, marketing, management, and other business disciplines. Develop basic analytical skills to gain insights and make better decisions. Special emphasis on descriptive statistics, data visualization, descriptive data mining, linear regression, forecasting, optimization models, spreadsheet models, Monte Carlo simulation, and decision analysis.
CIS 3303. Programming Logic and Design. 3 Credit Hours.
This course introduces computer programming and problem solving in a structured program logic environment. Study the logic of decision-making, nested looping, multidimensional arrays, implementation of the structure theorem and Boolean algebra. Utilize structured flowcharts, structured pseudocode, hierarchy charts and decision tables, in order to document logical problem solutions. The course focuses on business problem solving and does not count as a programming language. No prior programming experience is necessary.

CIS 3304. Topics in Computer Information Systems. 3 Credit Hours.
Examine selected topics in programming languages, programming techniques, or job control languages. May be repeated once for credit as topics vary. Prerequisite(s): Varies with topic.

CIS 3305. Operating Systems Theory and Practice. 3 Credit Hours.
Study the history, development, and principles of computer operating systems and their variants in mainframe, minicomputer, server, and microcomputer application environments. Explore preferred operating systems representing various hardware environments. Special emphasis on related software issues, programming capabilities, and job control languages. Prerequisite(s): CIS 3303 or permission of department chair.

CIS 3306. Data Visualization. 3 Credit Hours.
Data visualization makes it easier to understand the data. The goal of this course is to introduce students to data visualization including both the principles and techniques. Students will learn the value of visualization, specific techniques in information visualization and scientific visualization, and how to understand how to best leverage visualization methods.

CIS 3307. Application Project with Laboratory. 3 Credit Hours.
Develop and document a software product using a formal software development process. Projects of value are actively sought from local businesses, governments, or nonprofit organizations when possible. May be repeated for credit when topics change. Prerequisite(s): Varies with topic.

CIS 3312. Technical Support Management and Operations. 3 Credit Hours.
Study the scope, significance, job skills, training, software availability, and support problems of technical support within the technology industry. Develop technical support skills, with an emphasis on the use of resources, troubleshooting, and customer relations.

CIS 3315. Web Site Development and Design. 3 Credit Hours.
This course introduces students to basic web design using HTML and CSS. The course does not require any prior knowledge of HTML or web design. Students learn how to plan and design effective web pages; implement web pages by writing HTML and CSS code; enhance web pages with the use of page layout techniques, text formatting, graphics, images, and multimedia; and produce a functional, multi-page website.

CIS 3330. C++ Programming. 3 Credit Hours.
Study structured C++ programming using microcomputers. Special emphasis on syntax, operators, functions, standard input/output, arrays, pointers, and structures in C++ programming. Prerequisite(s): COSC1309 OR COSC 1336 or CIS 3303 or concurrent enrollment or permission of department chair.

CIS 3331. Visual Basic Programming. 3 Credit Hours.
Study visual application development using Visual Basic and the native integrated development environment. Examine logic, working with forms, sequential and direct file access, and scope and visibility rules. Analyze problems within Visual Basic and develop programming solutions. Prerequisite(s): COSC1309 OR COSC 1336 or CIS 3303 or concurrent enrollment or permission of department chair.

CIS 3332. Java Programming. 3 Credit Hours.
Study applications development using Java. Examine identifiers and reserved words, objects and primitive data, program statements, arrays and vectors, exceptions and I/O streams, and graphical user interfaces. Analyze problems within Java and develop programming solutions. Prerequisite(s): COSC1309 OR COSC 1336 or CIS 3303 or concurrent enrollment or permission of department chair.

CIS 3333. C# Programming for Windows and the Web. 3 Credit Hours.
Use C# programming language to create Windows applications in the Internet and intra-network environment. Explore object-oriented design, client-server interaction, event-driven programming, graphical user interfaces, distributed data, and distributed applications. Prerequisite(s): CIS 3330 or CIS 3331 or CIS 3332 or permission of the department chair.

CIS 3341. Advanced Visual Basic Programming. 3 Credit Hours.
Study Visual Basic programming techniques, including declaration and manipulation of arrays, accessing database files, and advanced data handling techniques. Analyze advanced problems in Visual Basic and develop programming solutions. Prerequisite(s): CIS 3331 or permission of department chair.

CIS 3342. Advanced Java Programming. 3 Credit Hours.
Study Java programming language. Examine advanced Java capabilities, including class features, error handling, security techniques, Java streams, JavaBeans, database connectivity, Java servlets, Java Server pages, and advanced object-oriented programming techniques. Analyze advanced Java problems and develop programming solutions. Prerequisite(s): CIS 3332 or permission of department chair.

CIS 3343. C# Programming for Windows and the Web. 3 Credit Hours.
Use C# programming language to create Windows applications in the Internet and intra-network environment. Explore object-oriented design, client-server interaction, event-driven programming, graphical user interfaces, distributed data, and distributed applications. Prerequisite(s): CIS 3330 or CIS 3331 or CIS 3332 or permission of the department chair.

CIS 3344. Topics in Personal Computer Software and Application. 3 Credit Hours.
Examine selected personal computer applications and software packages. Explore the operation and usefulness of commonly available personal computing software solutions. May be repeated once for credit as topics vary. Prerequisite(s): Varies with topic.

CIS 3345. Personal Computer Technology. 3 Credit Hours.
Examine the technology and hardware operations in microcomputers, their peripherals, and operating system software. Special emphasis on hardware configuration and selection, installation and test procedures, and routine maintenance.
CIS 3347. Data Communications and Infrastructure. 3 Credit Hours.
A study of telecommunications architecture, industry standards and communications protocols, the placement of networking devices and components, transmission media selection, logical and physical topologies, voice and data transmission, and structured cabling for local area networks (LANs) and wide area networks (WANs). Application exercises will include evaluating alternatives available in hardware, software, and transmission facilities, design integration, selection and implementation of communications and networking solutions. In addition, students will explore the current and future impact and directions of these technologies. Students will complete an architecture design project that will include required components and address services as specified in an industry specific Request for Proposal (RFP).

CIS 3348. Networking Architecture and Design. 3 Credit Hours.
Examine industry standards and communications protocols in networking. Learn placement of networking devices, transmission media selection, topologies, data transmission, and structured cabling for LANs and WANs. Develop network designs as specified in an industry specific Request for Proposal (RFP). Prepare and present a design proposal in response to an RFP, and installation, configuration, testing and troubleshooting of WAN/LAN wiring interface technologies. Prerequisite(s): CIS 3347 or permission of department chair.

CIS 3351. Data Structures. 3 Credit Hours.
Study theory and applications of commonly used computer data structures, files, file organization and access methods, databases, and other storage and retrieval methods. Prerequisite(s): CIS 3340 or CIS 3341 or CIS 3342 or CIS 3343 or concurrent enrollment or permission of department chair.

CIS 3360. Ethics in Computing. 3 Credit Hours.
(W) Examine personal and contemporary organizational ethical issues and challenges in the design, development and the use of computing technologies in a global environment. Special emphasis on the philosophical basis for computer ethics, reliability and safety of computer systems, protecting software and other intellectual property, computer crime and legal issues, and professional codes of ethics (AIS, ACM, IEEE etc.).

CIS 3361. Introduction to Computer Forensics. 3 Credit Hours.
The course focuses on clear and authoritative instructions about the field of computer forensics as it applies to the investigative process; from the collection of digital evidence to the presentation of Computer Forensic Examination findings in a court of law. Upon successful completion of the course, students will have a basic understanding of the computer forensic process, the scientific procedure involved in accounting, law enforcement, and computer sciences. Topics also include the science of computer forensics and how it relates to and is utilized within the judicial system of the United States.

CIS 3365. System Analysis and Design. 3 Credit Hours.
Examine 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. Analyze traditional and current methodologies in design, including computer aided analysis and design tools. Prerequisite(s): CIS 3330 or CIS 3331 or CIS 3332, or permission of department chair.

CIS 3387. Cooperative Education. 3 Credit Hours.
Develop and apply relevant CIS concepts in a work environment. Work in an approved professional CIS setting for approximately 300 hours before credit will be granted. To remain in the program, the student must remain in good standing with the university and employer. May be repeated once for credit. Prerequisite(s): Permission of co-op coordinator and department chair, and formal application to the program. Field experience fee $75.

CIS 3389. Special Topics in Computer Information Systems. 3 Credit Hours.
Examine selected issues, products, and technology current to computer information systems. This course may be repeated once for credit. Prerequisite(s): Varies with the topic or Permission of department chair.

CIS 4301. Database Theory and Practices. 3 Credit Hours.
Examine database concepts and structures, and understand file and data management principles underlying database construction. Learn fundamental types of database models, with emphasis on relational databases and major non-relational forms. Develop skills in analysis, design, development, and optimization of working database applications on a variety of problems. Prerequisite(s): 12 hours of CIS courses or permission of department chair.

CIS 4302. Advanced Business Analytics. 3 Credit Hours.
Follow the traditional descriptive/predictive/prescriptive framework to analyze large sets of data and explain the theory of formulating statistical models. Special emphasis on cluster analysis, Naïve Bayes, Optimization Modeling, simple and multiple linear regression, and ensemble modeling. Prerequisite(s): CIS 3302.

CIS 4303. Data Mining. 3 Credit Hours.
Discover basic concepts, tasks, methods, and techniques in data mining, and analyze data mining problems and their solutions. Develop an understanding of the data mining process, learn various techniques for data mining, and apply the techniques in solving problems using data mining tools and systems. Prerequisite(s): CIS 3302 or CIS 4301.

CIS 4304. Advanced Programming Language. 3 Credit Hours.
Develop programming proficiency in a modern programming language. May be repeated as topics vary. Prerequisite(s): Varies with topic.

CIS 4307. Topics in Networking. 3 Credit Hours.
Explore selected topics in alternative or innovative network software packages, including network focused tools, utilities, and operating systems. Special emphasis on an exploration of the usefulness and operation of the topic of study. May be repeated once for credit as topics vary. Prerequisite(s): Varies with topic.

CIS 4308. Advanced Programming Language. 3 Credit Hours.
Develop programming proficiency in a modern programming language. May be repeated as topics vary. Prerequisite(s): Varies with topic or Permission of department chair.

CIS 4309. Decision Support Methods. 3 Credit Hours.
Use computer-based decision, analysis, planning, and presentation methods in the context of management strategy and problem-solving policy. Apply software tools such as databases, spreadsheets, statistical graphics, and presentation programs for extracting, organizing and presenting information in support of management decision making. Prerequisite(s): COSC 1301 or CIS 3300, or ACCT 2302 or ACCT 2402 or MGMT 3301 or FIN 3301 or MKTG 3314 or BUSI 3311, or permission of department chair.

CIS 4310. Artificial Intelligence. 3 Credit Hours.
A study of AI programming techniques and tools. Topics include Expert Systems, Neural Networks, Genetic Algorithms, Automatic Programming, heuristic search, and others. Prerequisite(s): CIS 3330 or CIS 3331 or CIS 3332 or permission of department chair.
CIS 4311. Android Application Development. 3 Credit Hours.
This course explores the design and development of mobile applications such as Android, including resources, user interfaces, services, alarms, maps and location based services. Prerequisite(s): CIS 3332 or Permission of Department Chair.

CIS 4335. UNIX Systems Administration. 3 Credit Hours.
Examine the underlying conceptual considerations of the UNIX operating system and its variants in mainframe, minicomputer, server and microcomputer application environments. Explore memory and process management, multi-programming and processing, interrupt structure, and parallel processing mechanisms and procedures. Special emphasis on practical application of configuration and security of selected UNIX systems. Prerequisite(s): CIS 3305 or 12 hours of CIS courses or permission of department chair.

CIS 4340. Algorithm Design and Analysis. 3 Credit Hours.
Examine computer algorithms, and learn to select appropriate algorithms for tasks within specific computing environments. Study searching and sorting algorithms for their importance in computing. Special emphasis on efficiency, readability, maintainability, advanced design and analysis techniques, advanced data structures, and graph algorithms. Prerequisite(s): CIS 3351 or concurrent enrollment or permission of department chair.

CIS 4341. Information Technology Security and Risk Management. 3 Credit Hours.
Examine the fundamental principles and topics of Information Technology Security and Risk Management at the organizational level. Learn critical security principles and best practices in order to plan, develop and perform security tasks. Special emphasis on hardware, software, processes, communications, applications, and policies and procedures with respect to organizational IT Security and Risk Management. Prerequisite(s): 12 hours of CIS Courses or Permission of the department chair.

CIS 4342. Computer Security Principles and Practices. 3 Credit Hours.
Explore current principles, theories, and concepts behind computer security. Examine basic methods and practices of security as it affects modern business operations. Special emphasis on cryptography, authentication, access control, database security, malware, intrusion detection, firewalls, security policy and management, software and operating system security, auditing and legal aspects of cyber security. Prerequisite(s): 12 hours of CIS courses or permission of department chair.

CIS 4343. Advanced Systems and Analysis. 3 Credit Hours.
Examine data and process decomposition, and modeling in advanced systems analysis. Study the CASE tools which support models and interaction analysis of process and data. Explore the enterprise-wide view of system analysis, and understand the theory behind and the generation of normalized relational database tables. Prerequisite(s): CIS 3365 and CIS 4301 or permission of department chair.

CIS 4345. Network and Systems Security. 3 Credit 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 and networks. Areas covered include information and message security, database and file integrity, physical security, security management, security risk analysis, and encryption/cryptography. Will include practical laboratories in the analysis, and configuration of networking security protocols and tools. Prerequisites: CIS 3347 or approval of Department Chair. Lab fees: $95.

CIS 4346. Applied Security. 3 Credit Hours.
This course will validate and develop in-depth hands on knowledge about the operation and defense from malicious attacks. It builds on previous course work to understand rapid recovery and defense of systems from attack. Students develop knowledge about system vulnerabilities and the process of penetration of systems as a way to evaluate the security of systems. Specific topics include social engineering, malware and malicious software usage and identification, network security tool familiarization and system hardening. Prerequisite(s): CIS 3347 and (CIS 4341 or CIS 4342) or approval of department chair. Lab Fee: $95.

CIS 4348. Security Trends and Malware Analysis. 3 Credit Hours.
This course analyzes and investigates security threats and ethical hacking methods. It will introduce students to modern malware analysis techniques through a detailed examination of malware, virus, and malicious code operation by examining case studies and hands-on interactive analysis of real world samples. The course will also examine in detail current trends in the threat environment and the most current attack exploits. Student will use a variety of methods to investigate current security threats and their mitigation. Topics include malware morphology, disassembly of malware, ethical hacking methods on systems including penetration, and trends in the threat-scape. Prerequisite(s): CIS 4345 or CIS 4346 or approval of department chair. Lab fees $95.

CIS 4350. Management Information Systems. 3 Credit Hours.
Study management issues related to business information systems designed to meet the informational needs of the various business subsystems. Special emphasis on the concepts of systems development, security, privacy and ethics associated with information systems.

CIS 4351. IS Project Management. 3 Credit Hours.
This course studies the processes, methods, techniques and tools that organizations use to manage their information systems projects. The course covers a systematic methodology for initiating, planning, executing, controlling, and closing projects. This course assumes that project management in the modern organization is a complex team based activity, where various types of technologies (including project management software as well as software to support group collaboration) are an inherent part of the project management process. This course also acknowledges that project management involves both the use of resources from within the firm, as well as contracted from outside the organization. Prerequisite: Senior standing or approval of department chair.

CIS 4352. Structured Query Language. 3 Credit Hours.
Study relational database schema, formulating queries and sub-queries of varying complexity, embedding query statements in a "host" language, and defining and querying data views. Prerequisite(s): CIS 4301 or permission of department chair.
CIS 4360. Strategic Information Systems. 3 Credit Hours.  
(WI) This course will explore necessary management actions, which will ensure that information is available, correct, manipulable, protected, and archived in proper forms to allow for a strategic use of information systems in the enterprise. Throughout this course we will review a set of conceptual frameworks of IT management, and by developing a critical view of two levels of IT management – strategic and tactical. We will address the value/importance of IT from strategic and tactical perspectives, and the IT management challenges of managing people, processes and technology. Prerequisite(s): Senior Standing or CIS 4350 or Permission of Department Chair.

CIS 4375. Professional Senior Seminar. 3 Credit Hours.  
Participate in professional organizations, current events, research and presentations, job market analysis, interviewing, and resume preparation, in order to prepare for the professional certification exam. Prerequisite(s): 24 hours of CIS courses.

CIS 4376. Network Administration. 3 Credit Hours.  
Study communications architectures, protocols, and interfaces as related to network operating systems. Examine communications networking techniques, such as DHCP and DNS server configuration and internet working. Examine industry standards in networking. Special emphasis on installation, configuration, client handling, basic security, and troubleshooting of a network operating system. Use a modern network operating system in order to gain experience in configuration and administration of a network. Lab fee $95. Prerequisite(s): CIS 3347 or permission of department chair.

CIS 4378. Comprehensive Networking. 3 Credit Hours.  
A course requiring the student to learn details of various networking protocols and engage in analyzing and designing various computer network applications. Specifically, the course will focus on the OSI and TCP/IP networking protocols, including subnetting of IP address, local area networking (LAN), wide area networking (WAN) and network analysis. This course includes hands-on exercises on various networking layer messages on live web traffic and explore them to understand overall networking process. Lab fees: $95. Prerequisite(s): CIS 3347 or permission of department chair.

CIS 4379. Software Engineering for E-Business. 3 Credit Hours.  
(WI) 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. Students study a software life-cycle model, fundamental software engineering principles, and documentation standards in detail. An E-Business team project is required, which emphasizes the production of high quality software for medium and larger scale projects. Prerequisite(s): (CIS 3340 or CIS 3341 or CIS 3342) and senior standing.

CIS 4380. Software Engineering. 3 Credit Hours.  
Examine the production of high quality software for medium and larger scale projects. Explore theoretical software engineering research as the basis for a practical approach to developing quality software. Special emphasis on the software life-cycle model, fundamental software engineering principles, and documentation standards in detail. Prerequisite(s): CIS 3340 or CIS 3341 or CIS 3342 or CIS 3343 and senior standing.

CIS 4384. Internship in Computer Information Systems. 3 Credit Hours.  
Gain practical work experience as a programmer/programmer analyst. Apply the principles, concepts, and skills learned during the first three years of collegiate training to the field of computer information systems. May be repeated for credit. Prerequisite(s): Permission of internship coordinator or department chair. Field experience fee $75.

CIS 4388. Computer Information Systems Problems. 1-3 Credit Hours.  
Explore selected topics in business on technical computer applications, practicum, field project, or other suitable computer studies. Prerequisite(s): Varies with topic or Permission of department chair.

CIS 5090. Computer Information Systems Comprehensive Examination. 0 Credit Hours.  
Prepare for and take the CIS comprehensive exam. Students should take this exam in their last semester, their second to last semester, or when all the core classes have been taken. Students taking the thesis option do not need to take this exam.

CIS 5302. Object Oriented Programming. 3 Credit Hours.  
This course covers the concepts of object-oriented approach to software design and development. It includes a detailed discussion of programming concepts starting with the fundamentals of data types, control structures, arrays, classes and proceeding to advanced topics such as inheritance and polymorphism, creating user interfaces, and exceptions. Upon completion of this course the students will be able to design and implement applications.

CIS 5304. Data Communications for Managers. 3 Credit Hours.  
Examine 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. Upon completion of this course, the students will be able to evaluate, select, and implement different data network options.

CIS 5307. Advanced Systems Analysis and Design. 3 Credit Hours.  
Examine system analysis and design processes. Students will be introduced to comparative development methodologies and modeling tools including project management and cost-benefit analysis; information systems planning and project identification and selection; requirements collection and structuring; process modeling; conceptual and logical data modeling; database design and implementation; design of the human-computer interface; system implementation; system maintenance and change management.

CIS 5311. Management Information Systems. 3 Credit Hours.  
Study the management and use of information and technology as a resource to create competitive organizations, manage global operations, provide useful products and quality services. Examine intellectual property, privacy, organizational and societal impact, legal issues, ethics, security issues, decision making, strategic information systems, and organizational support systems.

CIS 5312. Technology Support Management Operations. 3 Credit Hours.  
Study issues of organizing and staffing a technical support help desk. Explore the numerous management techniques and operational concepts that businesses and governmental organizations use to manage successful technical support activities. Survey the wide array of commercially available technical support software, and work with the public to deliver technical support in an operational environment.
CIS 5316. Advanced Database Management. 3 Credit Hours.
Examine the methodologies of database management including data models, database design, normalization, SQL/PLSQL, NoSQL, performance and reliability, distributed database, data dictionaries, data integrity, security, and privacy.

CIS 5318. Quantitative Concepts. 3 Credit Hours.
Examine and apply measurement techniques to information technology related problems. Use a statistical program to analyze data, and perform analyses of programs and selected algorithms.

CIS 5319. Business Intelligence Systems. 3 Credit Hours.
Examine the fundamentals of Business Intelligence including concepts, techniques, and applications. Special emphasis on Decision Support Systems and other collaborative systems, Data Management, Data Mining, Data Visualization, Expert Systems and Intelligent Systems.

CIS 5320. Information Systems Seminar. 3 Credit Hours.
Explore selected topics in information systems. Topics will vary. May be repeated once for credit as topics vary.

CIS 5325. Unified Modeling Language. 3 Credit Hours.
This course covers Systems Development Life Cycle using the Unified Modeling Language (UML) in an object-oriented software system environment. Topics include modeling the elements, structure, and behaviors of object-oriented software systems using UML. Upon completion of this course, students will be able to use UML to identify objects and classes, capture requirements and define use cases, to extend and enhance visual models, and model the details of object behavior with activity and state-chart diagrams.

CIS 5344. Scripting Languages for Web Design. 3 Credit Hours.
This course is a study of Web Scripting languages and will cover many aspects of creating dynamic Web Sites using server-side and client-side scripting. It will also delve into interactions between Web Sites and a database.

CIS 5345. Extensible Markup Language. 3 Credit Hours.
Study well-formed XML and validated XML documents and the language facilities for working with hierarchical data. Describe and transform XML data to an external presentation using real world problems.

CIS 5349. Topics in Programming. 3 Credit Hours.
Develop programming proficiency in a modern programming language. Undertake multiple programming assignments to achieve necessary knowledge and skills. May be repeated once for credit as topics vary. Prerequisite(s): Varies with Topic.

CIS 5351. Information Technology Project Management. 3 Credit Hours.
Study the concepts and practices of project management and its importance to improving the success of information technology projects. Utilize project management concepts and techniques within group projects, as a project manager or active team member. Topics include techniques for planning, organizing, scheduling, and controlling information systems projects.

CIS 5353. Big Data Analytics and Management. 3 Credit Hours.
Study fundamental concepts and principles of Big Data Analytics and its role in supporting/enhancing organizational decision making and predictions. Special emphasis on Big Data, trends, challenges and applications, analytic methods, tools, technologies, infrastructure and strategies for Big Data Management, data Privacy and Ethics. Prerequisite(s): CIS 5311 or permission of department chair.

CIS 5354. Advanced Methods in Big Data Analytics. 3 Credit Hours.
Study advanced concepts and principles of Big Data Analytics and its role in supporting/enhancing organizational decision making and predictions. Special emphasis on NoSQL Databases, Hadoop Ecosystem, MapReduce, Pig, Hive, Natural Language Processing, Social Network Analysis, and Data Visualization. Prerequisite(s): CIS 5353, Java Programming or permission of department chair.

CIS 5365. Web Development. 3 Credit Hours.
Examine theory and application of the multimedia application development process. Develop the web-based authoring and scripting tools, to use in the creation of various types of web-based projects. Special emphasis on the planning, design, projection, and evaluation of interactive web-based projects for delivery through a variety of media.

CIS 5370. Foundations of Information Security. 3 Credit Hours.

CIS 5376. Network Administration and Design. 3 Credit Hours.
This course explores network design, installation planning, and preparation. Topics include installing network operating system; establishing network security and services; exploring network administration, network utilities, maintenance techniques; monitoring performance; troubleshooting and configuring the network.

CIS 5380. E-Business Application Development. 3 Credit Hours.
This course provides an in-depth knowledge of systematic approach to analyze digital markets. Upon completion of this course, students will be able to design and implement an e-business project integrating database, and scripting languages. Prerequisite: CIS 5316 or perm of Chair.

CIS 5381. Research Project with Laboratory. 3 Credit Hours.
Engage in independent study in selected topics in Information Systems. May be repeated for credit once when topics change. Prerequisite(s): Varies with topic.

CIS 5382. Research Methods in Computer Information Systems. 3 Credit Hours.
This course provides an overview of research problems and techniques in information systems. Upon completion of this course, students will be able to formulate a research question; conduct a literature survey; select appropriate research methods to answer their research questions; collect and analyze data.

CIS 5384. Computer Information Systems Internship. 3 Credit Hours.
Engage in a supervised professional experience in an information technology-related position with a public or private organization. May be repeated for a total of 6 hours credit. Prerequisite(s): 6 semester hours of CIS courses or equivalent and permission of internship coordinator or department chair. Field experience fee $75.

CIS 5388. Computer Information Systems Problems. 1-3 Credit Hours.
Study selected topics in CIS 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(s): Varies with topic.

CIS 5389. Special Topics in Computer Information Systems. 3 Credit Hours.
Study selected current topics in computer information systems. May be repeated once for credit as topics vary. Prerequisite(s): Varies with topic.
CIS 5398. Computer Information Systems Thesis. 1-6 Credit Hours.
Prepare and write the information systems thesis. Scheduled when the
student is ready to begin the thesis. No credit until the thesis is accepted.
Prerequisite(s): CIS 5382, 18-hours.

B.B.A. Finance

OVERVIEW
The bachelor’s degree in Finance prepares students to pursue a career in
finance in a global economy as well as pursue advanced degrees.

Students have the flexibility to focus on courses that meet specific career
objectives and related certifications, such as:

- financial planning
- corporate finance
- business development

You will have the opportunity to work with experienced and dedicated
faculty committed to the pursuit of excellence in teaching.

Program Level Student Learning Outcomes
The student will be able to:

1. Demonstrate proficiency in professional communications.
2. Design and defend a reasoned resolution to an ethical challenge.
3. Demonstrate the ability to value financial assets.
4. Produce financial analysis of an investment decision.

Bachelor of Business Administration - Finance Program
Requirements
Refer to the General Education Core Requirements (p. 28) page for more
information on the CORE REQ coursework. The Field of Study (FOS)
courses are listed in the footnotes (if applicable). At least 120 credit
hours are required for the degree.

The program listed is a general guideline for semester coursework, speak
with a college advisor for an individualized student education plan.

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<tr>
<th>Code</th>
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<th>Credit Hours</th>
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<td>Mathematics for Business &amp; Social Sciences (or CORE REQ 020)</td>
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<td>CORE REQ Creative Arts (050)</td>
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<td>ACCT 2301</td>
<td>Principles of Financial Accounting (DEG REQ) 1</td>
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<td>BUSI 4359</td>
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Courses

FIN 3300. Introduction to Financial Planning. 3 Credit Hours.
Analyze personal financial decisions, including basic financial planning, tax issues, managing savings and deposit accounts, buying real assets, the use of credit, insurance management investments and saving for retirement.

FIN 3301. Financial Management I. 3 Credit Hours.
Analyze financial decision-making at the corporate level with emphasis on the maximization of stockholder wealth. Learn financial statement analysis, the valuation of stocks and bonds, cost of capital, capital budgeting, dividend policy, leverage and capital structure, methods of firm valuation, working capital management, mergers and acquisitions, and bankruptcy. Prerequisite(s): ACCT 2302 or ACCT 2402 and ECON 2301.

FIN 3302. Financial Intermediaries. 3 Credit Hours.
Study the internal operations of financial intermediaries with major emphasis on organization, source and allocation of funds, supervision, and regulation. Prerequisite(s): FIN 3301 and ECON 3303.

FIN 3303. Money and Banking. 3 Credit Hours.
Study 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. Credit for both FIN 3303 and ECON 3303 will not be awarded. Prerequisite(s): ECON 2301.

FIN 3304. Economics in Financial Markets. 3 Credit Hours.
Study the aggregate financial system and capital markets and the impact these have on financial intermediaries. Special emphasis on flow of funds analysis, interest rate theory, role of financial intermediaries, and management of financial assets. Credit for both FIN 3304 and ECON 3305 will not be awarded. Prerequisite(s): FIN 3301.

FIN 3309. Global Financial History. 3 Credit Hours.
Study different financial crises in history. Explore global and long-term overviews of socio-economic factors that influence the development of financial instruments, institutions, markets and entrepreneurs.

FIN 3387. Cooperative Education. 1-3 Credit Hours.
Integrate academic study with work experience that is relevant to a major or minor. Two-semester minimum requirement 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. Cooperative Education advisor will supervise the student's and assign the final grades. Students may participate in the Cooperative Education but will earn only a maximum of 6 hours credit toward a degree. Prerequisite(s): 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 permission of department chair. Field experience fee $75.

FIN 4300. Advanced Financial Management. 3 Credit Hours.
Analyze value-based management techniques with emphasis on the factors affecting the corporation's intent to maximize shareholder wealth. Explore financial statement analysis, cash flow analysis, economic and market value added securities valuation, the cost of capital, capital budgeting, capital structure, divided policy, the use of leverage, working capital management, and corporate governance. Prerequisite(s): FIN 3301.

FIN 4301. International Financial Management. 3 Credit Hours.
Analyze the financing of investment abroad, the management of assets in differing financial environments, issues and questions which concern financial management of international corporations. Explore 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(s): FIN 3301 or permission of department chair.

FIN 4302. Real Estate Finance. 3 Credit Hours.
Study 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. Prerequisite(s): Permission of department chair.

FIN 4303. Case Studies in Finance. 3 Credit Hours.
(WI) Utilize fundamental concepts learned in previous finance, accounting, and economics courses to analyze real-world finance problems. In structured and unstructured cases, student teams analyze problems and recommend solutions. Cases drawn from areas such as corporate finance, investments, international finance, and personal finance. Prerequisite(s): FIN 3301.

FIN 4304. Investments. 3 Credit Hours.
Study the development of investment policy, the character of investment risk, comparison of investment media, description and analysis of security markets and their operations. Prerequisite(s): FIN 3301. BUSI 3311 or equivalent.

FIN 4305. Federal Tax Accounting I. 3 Credit Hours.
Explore the present income tax law and regulations, income tax legislation, treasury and court decisions, departmental ruling, income tax problems and returns, social security and self-employment taxes. Prerequisite(s): ACCT 2302 or ACCT 2402 and Junior classification. Credit for both ACCT 4305 and FIN 4305 will not be awarded.
FIN 4306. Federal Tax Accounting II. 3 Credit Hours.
Study current income tax law and tax accounting procedures. Preparation of income tax returns of partnerships and corporations. Prerequisite(s): FIN 4305 or permission of School Director. Credit for both ACCT 4306 and FIN 4306 will not be awarded.

FIN 4307. Analysis of Fin Statements. 3 Credit Hours.
Analyze corporate financial statements. Learn how information can be analyzed and processed to aid creditors, investors, managers, consultants, auditors, directors, regulators and employees in their business decisions. Prerequisite(s): FIN 3301.

FIN 4308. Risk Management. 3 Credit Hours.
Analyze processing, investing, and evaluation of risk management. Examine risk management process and its application in commercial, personal, and public risk. Explore various types of insurance products, the process by which insurance is sold, and how individuals and organizations manage risk via insurance products. Prerequisite(s): FIN 3301 or permission of department chair.

FIN 4310. Managerial Economics. 3 Credit Hours.
Study economic theory and methodology in business and administrative decision-making. Explore economic analysis and its use in formulating business policies. Analyze concepts of profits, production and cost functions, demand theory, competitive pricing policies, and business criteria for investment output and marketing decisions. Credit for both FIN 4310 and ECON 4310 will not be awarded. Prerequisite(s): FIN 3301.

FIN 4384. Financial Internship. 1-6 Credit Hours.
Participate in a finance related position for work experience with a public or private organizations that is preapproved and supervised. May be repeated for a total of 6 credit hours. Prerequisite(s): FIN 3301 and permission of department chair.

FIN 4388. Financial Problems. 1-3 Credit Hours.
Study of selected problems in finance. Engage in independent research, reading and discussions under the personal direction of the instructor; topics may vary according to student need. May be repeated with permission department chair. Prerequisite(s): Permission of department chair.

FIN 4389. Selected Topics in Finance. 3 Credit Hours.
Examine current issues and topics in finance. Study readings from current finance publications and other related periodicals. Activities may include directed study, participation in professional organizations, research and presentations, job market analysis, preparation and sitting for professional certification exams. May be repeatable for credit if the topic varies. Prerequisite(s): 12 semester hours of FIN and permission of department chair.

FIN 5301. International Fin Strategy. 3 Credit Hours.
Examine 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.

FIN 5303. Bank Management. 3 Credit Hours.
Study bank management and bank regulation. Examine the operations and management policies of depository institutions, the conditions that have led to bank regulation and deregulation, the risk structure of credit for commercial and consumer clients, and capital management issues for a bank.

FIN 5304. Investments. 3 Credit Hours.
Explore 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(s): FIN 3301 or equivalent.

FIN 5305. Corporate Finance Case Studies. 3 Credit Hours.
Incorporate case studies and financial analysis to make financial management decisions. Analyze selected cases and prepare solutions. Discuss solutions in class and prepare proposals. Students will be required to use prior knowledge, current research, and analytical ability in preparing their proposals. Prerequisite(s): Graduate standing.

FIN 5306. Markets and Institutions. 3 Credit Hours.
Explore the operation, mechanics, and structure of the financial system within the United States, emphasizing its institutions, markets, instruments, and monetary policy of the Federal Reserve and its impact upon financial institutions.

FIN 5307. Financial Management. 3 Credit Hours.
Study financial decision making in the modern corporation. Explore capital budgeting, capital structure, corporate sources of funding, dividend policy, financial risk management, standard theories of risk and return, and valuation of assets. Prerequisite(s): FIN 3301 or equivalent.

FIN 5308. Managerial Economics. 3 Credit Hours.
Analyze economic theory and methodology in business and administrative decision-making. Study the tools of economic analysis and their use in formulating business policies. Explore concepts of profits, production and cost functions, demand theory, competitive pricing policies, and business criteria for investment output and marketing decisions. Credit for both FIN 5308 and ECON 5308 will not be awarded.

FIN 5309. Global History of Finance. 3 Credit Hours.
Study the history of money to develop a unified framework for understanding the economic events, public policy, and financial innovation that characterize different geographical settings over time.

FIN 5310. Risk Management. 3 Credit Hours.
Explore the theory and practice of private insurance and its economic and social significance. Analyze life, health, automotive, homeowners, and liability insurance. Study various forms of risk management, characteristics of insurance contracts, government regulatory characteristics, and institutional structures are studied. Prerequisite(s): none.

FIN 5360. Finance Theory. 3 Credit Hours.
Study selected theoretical models used in finance. Explore the seminal theories that make up modern finance and form the basis for current research. Prerequisite(s): FIN 5307.

FIN 5370. Consumer Finance Seminar. 3 Credit Hours.
Explore consumer and business finance topics. Analyze debt management, initial public offering of a new business, Internet based finance and regulatory aspects, and management of compensation. Credit for both FIN 5370 and HRM 5326 will not be awarded.

FIN 5388. Financial Problems. 1-3 Credit 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(s): Permission of instructor.
FIN 5389. Selected Topics in Finance. 3 Credit Hours.
Examine selected topics in finance. Special emphasis on investments, corporate financial management, and financial markets and institutions. This course may be repeated for credit as the topic changes. Prerequisite(s): Graduate standing and FIN 3301 or FIN 5307 or permission of instructor.

B.B.A. Human Resource Management

OVERVIEW
A bachelor’s degree in Human Resource Management (HRM) is a versatile degree that bridges vital information in business, leadership, communications and ethics with human resource practices in the workplace. Essential HRM skills development, complemented by our various general studies courses, and SHRM alignment, ensure well-rounded HRM graduates are ready to take on the complex challenges within this rewarding career field. A&M-Central Texas provides an inclusive, student-focused learning experience with instructors who have real-world experiences in human resource management. Our program’s alignment with SHRM allows our BBA HRM majors, with 500 relevant hours of HR experience, to qualify for the SHRM-CP certification exam before graduation. The SHRM-CP is an industry recognized certification demonstrating knowledge and understanding of HR functions including strategy, leadership, business acumen, compensation, benefits, staffing, training, employee development, legal compliance, and more. Students are also encouraged to develop professional acumen and leadership skills by participating in HR related events, projects, and research through our student chapter the HR Warriors Leadership Team affiliated with the Society for Human Resource Management (SHRM).

The field of human resource management spans organization types including for-profit and nonprofit employers as well as industry clusters such as biotechnology and health sciences, energy, advanced manufacturing, information technology, petroleum and aerospace.

Human resource professionals may choose to work as a generalist engaging in all the functions of HRM or as a specialist, focusing more deeply on a specific function. Both career tracks offer advancement from entry level to management, director and vice president positions. HR generalist career tracks may also provide opportunities in other management fields.

Program Level Student Learning Outcomes
The student will be able to:

1. Demonstrate proficiency in written communications.
2. Demonstrate proficiency in oral presentations.
3. Exhibit cross-cultural competencies that will aid in communicating and working with people from different cultures.
4. Design and defend a reasoned resolution to an ethical challenge.
5. Demonstrate knowledge proficiency in the core business disciplines and integrate across multiple business disciplines.
6. Make decisions through business data analysis.
7. Demonstrate knowledge proficiency in the core human resource management functions.

Course Substitution Process
Students seeking to apply credits earned elsewhere toward their A&M-Central Texas degree should speak to a college advisor. Students must provide an official course description for each course taken at another institution if they wish to receive credit for it towards their A&M-Central Texas degree. If the course description alone is not sufficient to determine course equivalence, a course syllabus may also be required.

Requests for course substitutions will be denied if any of the following conditions apply:

- There is no available course requirement within the A&M-Central Texas degree that adequately matches the proposed substitution course
- The proposed course substitution makes it impossible for the student to complete the minimum number of upper-level hours required for the A&M-Central Texas degree
- The proposed course substitution makes it impossible for the student to meet the minimum A&M-Central Texas residency requirement of 30 hours
- The proposed course substitution is for upper-level business credit, and the original course was completed more than 10 years prior to the date of the substitution request.

Subject to the restrictions above, American Council on Education (ACE) recommended credit may also be utilized to fulfill upper level elective requirements. In special cases, ACE recommended credit may be utilized for non-elective requirements. In such cases, a department competency exam may be required. Please speak to an advisor for more information. No more than four upper level courses may be approved for substitution through ACE credit.

Bachelor of Business Administration · Human Resource Management Program Requirements

Due to the fact that there is substantial overlap with the MGMT pre-fixed courses, a Bachelors of Business Administration Human Resource Management student may not double major in Management.

Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan.

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<tr>
<th>Code</th>
<th>Title</th>
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<td>CORE REQ Life and Physical Science (030)</td>
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<td>CORE REQ Creative Arts (050)</td>
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<td>ACCT 2301</td>
<td>Principles of Financial Accounting (DEG REQ)</td>
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<td>CORE REQ Language, Philosophy and Culture (040)</td>
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<td>BCIS 1305</td>
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<td>or Computer Technology and Impact</td>
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<td>CORE REQ Communications (010)</td>
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<td>CORE REQ American History (060)</td>
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<td>CORE REQ Government/Political Science (070)</td>
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<td>CORE REQ American History (060)</td>
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<td>CORE REQ Government/Political Science (070)</td>
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<td>CORE REQ Social and Behavioral Sciences (080) 2</td>
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<td>BUSI 3311</td>
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<td>or BUSI 2305</td>
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<td>BUSI 3332</td>
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<td>BUSI 3344</td>
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<td>BUSI 4301</td>
<td>Business Ethics and Corporate Social Responsibility</td>
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<td>MGMT 4304</td>
<td>Recruitment and Selection of Human Resources</td>
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<td>MGMT 4305</td>
<td>Human Resource Development</td>
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<td>MGMT 4306</td>
<td>Employer and Labor Relations</td>
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<td>MGMT 4325</td>
<td>Leadership Theory and Practice</td>
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**Business Courses**

**BUSI 1301. Business Principles. 3 Credit Hours.**
(080) 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 2301. Business Law. 3 Credit Hours.**
The course provides the student with foundational information about the U.S. legal system and dispute resolution, and their impact on business. The major content areas will include general principles of law, the relationship of business and the U.S. Constitution, state and federal legal systems, the relationship between law and ethics, contracts, sales, torts, agency law, intellectual property, and business law in the global context.

**BUSI 2305. Business Statistics. 3 Credit 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. (BUSI 2305 is included in the Business Field of Study.) Prerequisites: MATH 1324 Mathematics for Business & Social Science Majors.

**BUSI 3301. Business Communications and Research. 3 Credit Hours.**
(WI) Study and demonstrate the different types of letters and reports utilized in the modern business environment. Basic business research and APA citation skills will also be an essential component of the course, as well as presentation fundamentals. Completion of this course is recommended in the first semester of enrollment as it is a prerequisite for most business courses.
BUSI 3311. Business Statistics. 3 Credit Hours.
Study descriptive statistics and the foundations of inferential statistics, including statistical methods of sampling, classifying, analyzing, and presenting numerical data. Learn frequency and sampling distributions, averages, dispersion, hypothesis testing and analyzing up to two populations and population proportions. Additionally, students will be introduced to ANOVA, correlations, regression and Chi-Square analyses. Prerequisite(s): MATH 1324 or higher.

BUSI 3332. Legal Environment of Business. 3 Credit Hours.
The study of principles of law relating to the development and sources of law, dispute resolution, ethics, torts, intellectual property, criminal law, contracts, agency, business entity formation, and international law issues in the 21st century.

BUSI 3344. Introduction to the Global Business Environment. 3 Credit Hours.
Broad coverage of key concepts and issues in the modern global business environment. Emphasis will be placed on political, financial, cultural and regulatory effects on the operations of businesses in the global environment.

BUSI 4301. Business Ethics and Corporate Social Responsibility. 3 Credit Hours.
Examine contemporary organizational ethical issues and challenges. Analyze stakeholder management and sustainability, with emphasis on the manager’s corporate social responsibilities to a wide variety of stakeholders. Study ethical dilemmas, decision-making frameworks and approaches to corporate social responsibility. Service Learning in the community is a required component. Prerequisites: BUSI 3301 and MGMT 3301.

BUSI 4320. Fundamentals of Real Estate. 3 Credit Hours.
Explore the nature of real estate and how ownership is held. Examine legal descriptions, encumbrances and liens, title transfer, title records. Analyze concepts of home ownership, buying, selling and financial real estate, closing the real estate transaction, and real estate taxes, and other issues in liens, leases and landlord tenant laws.

BUSI 4333. Business Law II. 3 Credit Hours.
Study principles of law concerning agency, employment, partnerships, corporations, bankruptcy, secured transactions, creditor/debtor rights, insurance, real and personal property. Examine laws impacting the regulatory environment of business such as consumer protection, environment, anti-trust, and securities law. Prerequisite(s): Junior standing.

BUSI 4334. Employment Law. 3 Credit Hours.
Study laws relating to employment. Explore employer-employee relationships, 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. Prerequisite(s): BUSI 3332 or MGMT 3302.

BUSI 4345. International Business Law. 3 Credit Hours.
Study international commercial business and the legal environment. Learn 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.

BUSI 4354. Global Business Practices. 3 Credit Hours.
Study basic international business concepts, cultural literacy, and discipline specific content applied to practical experiences and activities related to the visited foreign country. 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. Prerequisite(s): Junior or senior standing. BUSI 4354, MGMT 4356, or MKTG 4356 may not be taken concurrently. Field assignment fee of $75.

BUSI 4359. Business Strategy. 3 Credit Hours.
Study selected topics in dealing with problems or unique needs of business. Engage in independent research, reading and discussions under the personal direction of the instructor, topics may vary according to student need. May be repeated for credit as topics vary. Prerequisite(s): Permission to enroll is required.

BUSI 4361. General Business Seminar. 3 Credit Hours.
Study selected problems in diagnosing and analyzing problems of small business clients, and prepare formal written reports and recommendations for client implementation. Engage in independent research, reading and discussions under the personal direction of the instructor. Topics may vary according to student need. Prerequisite(s): Senior standing and permission of department chair.

BUSI 4388. Business Problems. 1-3 Credit Hours.
Study selected problems in diagnosing and analyzing problems of small business clients, and prepare formal written reports and recommendations for client implementation. Engage in independent research, reading and discussions under the personal direction of the instructor, topics may vary according to student need. May be repeated for credit as topics vary. Under the personal direction of the instructor, topics may vary according to student need. May be repeated for credit as topics vary.

BUSI 4361. General Business Seminar. 3 Credit Hours.
Study selected problems in diagnosing and analyzing problems of small business clients, and prepare formal written reports and recommendations for client implementation. Engage in independent research, reading and discussions under the personal direction of the instructor. Topics may vary according to student need. May be repeated for credit as topics vary. Prerequisite(s): Senior standing and permission of department chair.

BUSI 5090. Business Comprehensive Examination. 0 Credit Hours.
Study and take the business examination for non-thesis students. Register for the comprehensive examination during final semester of graduate coursework concurrently with BUSI 5359, or upon permission of advisor. All comprehensive examinations will be written, but an oral component may also be required. A maximum of three attempts will be allowed. Thesis students do not take this examination.

BUSI 5310. Business Research Methods. 3 Credit Hours.
Study nature, scope, and significance of business research and research methodology. Develop primary research methods with applications to specific problems. Learn the place of quantitative methods in research and individual investigation, and report on current problems in a selected field of interest. Prerequisite(s): BUSI 3311 or approved leveling in statistics.

BUSI 5312. Managerial Statistics. 3 Credit Hours.
Explore applied descriptive and inferential statistical calculations. Examine statistics as a decision-making tool under uncertainty, probability, confidence intervals, hypothesis testing, ANOVA, correlation, regression, and statistical process control in the context of business and organization. Prerequisite(s): BUSI 3311 or approved leveling statistics.
BUSI 5315. International Business Law. 3 Credit Hours.
Study international commercial business and the legal environment in which it operates. Explore 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.

BUSI 5354. Global Business Practices. 3 Credit Hours.
Study basic international business concepts, cultural literacy, and discipline specific content applied to practical experiences and activities in the visited foreign country. 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. Prerequisite(s): Admission into a COBA graduate program and permission of instructor. Field assignment fee of $75.

BUSI 5359. Business Strategy Seminar. 3 Credit Hours.
Develop an integrated view of the business functions addressed in the MBA core curriculum. Apply case analysis methodology for evaluating complex business situations, developing strategic alternatives, and recommending effective solutions. A culminating capstone interdisciplinary case study project is a required part of the course. Students must make a B on this project to pass the course and a B in the course to graduate. Prerequisite(s): ACCT 5303, FIN 5307, BUSI 5310, MGMT 5301 and MKTG 5308. A student may take one of these concurrently with the permission of the instructor. A materials fee of $45 is required for needed course materials.

BUSI 5388. Business Problems. 1-6 Credit Hours.
Study selected problems in business, and become acquainted with current research being conducted within the specific area of interest. Participate in directed reading of sources selected in concert by the student and professor. Engage in independent research, reading and discussions under the personal direction of the instructor. Topics may vary according to student need. Prerequisite(s): Permission of department chair.

Management Courses

MGMT 3301. Principles of Management. 3 Credit Hours.
Study the basic managerial functions of planning, organizing, staffing, directing, and controlling resources to accomplish organizational goals. Special emphasis on the systems concept of management and role of the manager in each level of the organization.

MGMT 3302. Personnel and Human Resource Management. 3 Credit Hours.
Study 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 3303. Supervisory Management. 3 Credit Hours.
Investigate the role, function, and responsibilities of the supervisor in modern organizations through study of sociological and psychological theories in human relations. Emphasis is on development of supervisory skills in communications, motivation, discipline, morale, and grievances as they arise in superior-subordinate relationships. Prerequisite(s): MGMT 3301 or permission of department chair.

MGMT 3310. Entrepreneurship I. 3 Credit Hours.
Learn how to identify and evaluate opportunities that may become the foundation for a new business ventures. Learn to develop a new business venture using the business model canvas. Assess the value of a concept and explore opportunity recognition, innovation and creativity, the legal structure of business, and types of entrepreneurial ventures. Prior knowledge in basic business fundamentals and good writing skills are preferred, but not required.

MGMT 3350. Organizational Behavior. 3 Credit Hours.
(WI) Analyze behavior of people at work in all types of organizations. Learn 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. Prerequisite(s): MGMT 3301 and BUSI 3301.

MGMT 4302. Productive Relationships. 3 Credit Hours.
Examine the practicals and theories related to dealing with human behavior. Emphasis on identifying and classifying behavior in order to better understand behavior and to develop strategies for effectively managing interpersonal relationships. A materials fee of $45 is required for needed course materials. Prerequisite(s): MGMT 3301 and BUSI 3301.

MGMT 4303. Managing Compensation. 3 Credit Hours.
Understand the various factors that affect the two important compensation decisions: How to (pay method) and how much (pay level) an organization should pay its employees. Emphasis is placed on the understanding of basic concepts, theories, current trends, and legal and social requirements related to the issue of compensation. Prerequisites: BUSI 3301 and MGMT 3302.

MGMT 4304. Recruitment and Selection of Human Resources. 3 Credit Hours.
Study recruitment and selection of human resources for organizations. Examine optimal utilization of human resources within organizations, and the use of tests and other techniques in human resource management. Prerequisite(s): MGMT 3302 and BUSI 3301.

MGMT 4305. Human Resource Development. 3 Credit Hours.
Learn practical and theoretical approaches to training and development of employees in an organization. Study role and scope of training and development functions, philosophies, strategies, needs analysis, development of program content, and evaluation Prerequisite(s): MGMT 3302 and BUSI 3301.

MGMT 4306. Employer and Labor Relations. 3 Credit Hours.
Study collective bargaining, labor market fundamentals, unionism, and related issues of labor economics. Prerequisite(s): MGMT 3301.

MGMT 4310. Entrepreneurship II. 3 Credit Hours.
Develop skills required to manage and grow a new venture past the start-up. Apply general business concepts to the challenges facing entrepreneurs. Draw on a broad range of business disciplines including management, marketing, finance, and accounting to develop a business plan. As such, background knowledge in these areas, as well as good writing skills, is strongly preferred, but not required. Prerequisite(s): MGMT 3301 or permission of department chair.

MGMT 4321. Production and Operations Management. 3 Credit Hours.
Study industrial organization, scientific management, planning and control, building locations and layouts, wage rates, corporation relationships, and research. Prerequisite(s): MGMT 3301 and BUSI 3311.
MGMT 4322. Management Science. 3 Credit Hours.
Learn quantitative techniques of decision-making with an emphasis on managerial needs. Study discipline of continuous improvement in managerial decision-making. Analyze problem definition, data gathering and analysis, process improvement, improvement control, and be able to make recommendations to improve business results. Prerequisite(s): MGMT 3301 and BUSI 3311.

MGMT 4325. Leadership Theory and Practice. 3 Credit Hours.
Study leadership theories and issues with practical application of newer leadership models in contemporary organizations. Explore facets of both leadership and followership, along with the impact of the particular organizational setting and situation. Explore situation analysis through active reflection, analysis of case studies, simulations, and popular business press treatment of leadership situations. Prerequisite(s): BUSI 3301 and MGMT 3301.

MGMT 4340. Management Seminar. 3 Credit Hours.
Study current issues in management. Analyze readings from current management publications and other related periodicals. May be repeated for credit when topics vary. Prerequisite(s): 15 hours of MGMT or permission of department chair.

MGMT 4354. International Management. 3 Credit Hours.
Study the international dimensions of the marketplace and environment related to management. Examine the role of culture within international strategic management, organizational behavior and human resource management. Prerequisite(s): MGMT 3301, BUSI 3301 and BUSI 3344.

MGMT 4356. Global Management Practices. 3 Credit Hours.
Study basic international business concepts, cultural literacy, and discipline specific content applied to practical experiences and activities in a visited foreign country. 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. Prerequisite(s): Junior or senior standing. BUSI 4354, MGMT 4356, or MKTG 4356 may not be taken concurrently. Field assignment fee of $75.

MGMT 4360. Emergency Management. 3 Credit Hours.
Learn theories, principles and approaches to emergency management. Study the Philosophy of Comprehensive Emergency Management (CEM) with its four phases of preparedness, mitigation, response, and recovery. Analyze past disasters presented along with their attendant policy formations leading to the FEMA all hazards approach.

MGMT 4370. Introduction to Project Management. 3 Credit Hours.
This course provides a comprehensive overview of project management. The culture, principles, and basic techniques of project management are addressed using the project life-cycle as the primary organizational guideline. The project management functions of planning, organizing, motivating and controlling with an emphasis on the application to business and technology are explained. Basic tools of project management such as work breakdown structure, scheduling, earned value analysis, and risk management are explained and demonstrated. Prerequisites: BUSI 3301, BUSI 3311, MGMT 3301; Materials Fee: $35 for a simulation experience.

MGMT 4384. Management Internship. 3 Credit Hours.
Participate in a management related position with a public or private business organization that is preapproved and supervised. May be repeated for a total of 6 credit hours. Prerequisite(s): MGMT 3301 and permission of department chair. Field experiences fee: $75.

MGMT 4388. Management Problems. 1-3 Credit Hours.
Study selected problems in management. Engage in independent research, reading and discussions under the personal direction of the instructor. Topics may vary according to student need. May be repeated with permission of department chair. Prerequisite(s): Senior standing and permission of department chair.

MGMT 5090. Management Comprehensive Examination. 0 Credit Hours.
Study and take the management examination for Non-thesis students. Register for the comprehensive examination during final semester of graduate coursework, or upon permission of advisor. All comprehensive examinations will be written, but an oral component may also be required. A maximum of three attempts will be allowed. Thesis students do not take this examination.

MGMT 5301. Organizational Behavior. 3 Credit Hours.
Learn behavioral theory in organizational context. Study individual and group dynamics in the business environment. Specific emphasis given to leadership, motivation, communication, employee supervision, and morale. Prerequisite(s): Management leveling.

MGMT 5302. Sustainable Business: A One Planet Approach. 3 Credit Hours.
The leaders of today’s organizations must navigate the challenges surrounding sustainability. Sustainability relates to the creation of long-term value for the triple bottom line of People, Planet and Profit through the adroit management of a firm’s social, environmental, and economic impact. This course will provide students with the understanding and tools necessary to integrate sustainability into the business disciplines (marketing, finance, operations, etc.), emphasize how sustainability challenges can be turned into strategic competitive advantage, explore emerging market opportunities for sustainable products and services, and underscore the role of leadership in innovating, organizing, and managing the changes necessary to adopt a “one-planet” approach to survive and thrive in this rapidly changing environment. Prerequisite(s): Management Leveling.

MGMT 5305. Analytical Methods of Management Decisions. 3 Credit Hours.
Study analytical techniques which may be used to facilitate decisions analysis. Learn concepts of utility, break even analysis, network models, linear programming, game theory and computer simulation. Use course activity to survey analytical techniques which may be used to facilitate analysis of alternative decisions and practice in applying the techniques through problem solving. Prerequisite(s): BUSI 3311 or MATH 3300 and graduate standing.

MGMT 5306. Influence Organizational Productivity By Interpersonal Relationships. 3 Credit Hours.
Learn the practicals and theories related to interpersonal behavior and its influence on organizational productivity. Learn to identify and classify behavior in order to better understand behavior and to develop strategies for creating productive relationships with others. Particular emphasis is directed toward the impact of interpersonal behavior in business organizations and the potential effect on productivity. A materials fee of $45 is required for needed course materials.

MGMT 5307. Responsibilities and Ethics of Leadership. 3 Credit Hours.
Analyze an organization’s social and environmental responsibilities to its employees, customers, and other key stakeholder groups. Emphasis is given to the case study method for evaluating the performance of various organizations. Develop a theoretical framework for understanding ethics, principles and values of leadership as they affect the organization, the organizational environment, and society. Prerequisite(s): Management Leveling.
MGMT 5308. Designing Organizations for Sustainable Effectiveness. 3 Credit Hours.
Examines theories, processes and “fit” models of organization design and alignment of structure, technology, information systems, reward systems, people and culture, and management processes with organizational goals. Emphasis is on maximizing the triple bottom line for sustainable effectiveness and how organizations can be led and managed so they are economically, socially, and environmentally sustainable. Prerequisite(s): Management leveling.

MGMT 5309. Global Leadership for Sustainability. 3 Credit Hours.
This course is the integrating capstone course for the MS One Planet Leadership program. Examines both mainstream and emerging theories and approaches to leadership, including models of leadership for sustainability and developing the global mindset necessary for flourishing enterprises to maximize the triple bottom line. Applies leadership principles and models to varied organizational situations with a primary focus on developing leaders who can effectively deal with the economic, social, and environmental challenges global leaders face in today's volatile and chaotic business climate. A culminating capstone sustainability case study project is a required part of the course. Students must make a B on this project to pass the course and a B in the course to graduate. Prerequisite(s): Students must have completed or be currently enrolled in the core courses for the program, MGMT 5301, MGMT 5308, & MGMT 5368, or instructor approval.

MGMT 5310. Leadership Formation and Development. 3 Credit Hours.
This course examines both mainstream and emerging theories and approaches to leadership development and formation, with an emphasis on case study and experiential methods of examining the application of leadership principles and models. It provides each student the opportunity to focus on developing their personal and organizational abilities and skills to become triple bottom line leaders who can better resolve the economic, social and environmental issues of the global, Internet age. Prerequisite(s): Management leveling.

MGMT 5311. Sustainable Operations & Services. 3 Credit Hours.
Focuses on providing students with a broad understanding and knowledge of operations and service management concepts. Emphasis will be placed on incorporating various aspects of sustainability, while designing, managing and controlling business operations and services. In addition, students will be exposed to several analytical tools, models and methodologies that are necessary to design, develop and evaluate various sustainable business operations. Prerequisite(s): Management and Statistics Leveling.

MGMT 5315. International Management for Sustainability. 3 Credit Hours.
This course will focus on international business management through a sustainability lens. Seminal and current research along with relevant real-world examples will be used to expose students to theories and frameworks pertinent to international business functions and cross-cultural management. The course will sensitize students to global business environment opportunities and stimulate generation of team-based international business solutions contributing to sustainable development and consistent with the triple bottom line approach. Prerequisite(s): Management leveling.

MGMT 5320. Negotiations. 3 Credit Hours.
Learn distributive negotiation, integrative negotiation, biases and pitfalls in negotiation, building trust, developing a negotiation style, power, persuasion, ethics, creativity and problem solving. Theoretical lecture/discussion and practical application/skill development, including in-class role plays, are used in this course. A materials fee of $40 is required for needed course materials.

MGMT 5330. Cross Sector Partnerships for Sustainability. 3 Credit Hours.
Cross-sector partnerships have proven to be one of the most effective approaches to complex environmental challenges. Through case studies of environmental partnerships, literature on collaboration strategies, reflective journals and field research, students will develop the skills necessary to lead future collaborative sustainability initiatives. Prerequisite(s): Management leveling.

MGMT 5340. Management Seminar. 3 Credit Hours.
Explore selected management topics of current importance to business management. May be repeated once for credit when topics vary.

MGMT 5345. Entrepreneurship. 3 Credit Hours.
The course is designed to cover the fundamentals of entrepreneurship. Students will be provided with tools and methods for successfully developing and launching a new venture. Students will have an opportunity to develop a business plan, and will be exposed to concepts such as creativity, risk-taking, and sustainable entrepreneurship.

MGMT 5350. Project Management. 3 Credit Hours.
Study a comprehensive overview of project management. Analyze culture, principles, and basic techniques of project management using the project life cycle as the primary organizational guideline. Learn project management functions and use basic tools of project management such as work breakdown structure, scheduling, contracting, earned value analysis, and risk management. A materials fee of $35 is required to support a learning simulation.

MGMT 5356. Global Management Practices. 3 Credit Hours.
Study basic international business concepts, cultural literacy, and discipline specific content applied to practical experiences and activities in a visited foreign country. 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. Prerequisite(s): Admission into a COBA graduate program and permission of instructor. Field experiences fee $75.

MGMT 5368. Development & Change for Learning Organizations. 3 Credit Hours.
Students apply strategies for developing organizational learning using behavioral science. Viewing organizations as complex ecological systems, students will master systems thinking related to organization development so that change efforts improve both the organization and the wider systems within which it operates. Prerequisite(s): MGMT 5301.

MGMT 5384. Management Internship. 3 Credit Hours.
Participate in a management related position with a public or private business organization that is preapproved and supervised. May be repeated for a total of 6 hours credit. Prerequisite(s): Permission of department chair. Field experiences fee $75.

MGMT 5388. Management Problems. 1-6 Credit Hours.
Study problems, topics, and perform research in management within the student’s area of interest. Engage in independent research, reading and discussions under the personal direction of the instructor; topics may vary according to student need. This course offers students the opportunity to study. Prerequisite(s): Permission of department chair.

B.B.A. Management

OVERVIEW
A bachelor’s degree in Management provides you with the opportunity to develop valuable skills that can be applied to a broad range of careers. The knowledge and skills gained through this program can serve as the foundation for leadership at every level. From an entry level analyst
or supervisor position all the way to the CEO of a major corporation. This program can also serve as a gateway to graduate studies in business or law. While gaining general exposure to major business disciplines such as accounting, economics, finance, and marketing, you will receive high quality, detailed and rigorous instruction in the human resource management, organizational behavior, leadership, and operations management. The BBA in Management degree is also designed with upper level elective flexibility for you to tailor your education to match your career needs.

Program Level Student Learning Outcomes
The student will be able to:

1. Demonstrate proficiency in written communications.
2. Demonstrate proficiency in oral presentations.
3. Exhibit cross-cultural competencies that will aid in communicating and working with people from different cultures.
4. Design and defend a reasoned resolution to an ethical challenge.
5. Demonstrate knowledge proficiency in the core business disciplines and integrate across multiple business disciplines.
6. Make decisions through business data analysis.
7. Define and explain the practical significance of core/critical management concepts.

Course Substitution Process
Students seeking to apply credits earned elsewhere toward their A&M-Central Texas degree should speak to a college advisor. Students must provide an official course description for each course taken at another institution if they wish to receive credit for it towards their A&M-Central Texas degree. If the course description alone is not sufficient to determine course equivalence, a course syllabus may also be required.

Requests for course substitutions will be denied if any of the following conditions apply:

- There is no available course requirement within the A&M-Central Texas degree that adequately matches the proposed substitution course.
- The proposed course substitution makes it impossible for the student to complete the minimum number of upper-level hours required for the A&M-Central Texas degree.
- The proposed course substitution makes it impossible for the student to meet the minimum A&M-Central Texas residency requirement of 30 hours.
- The proposed course substitution is for upper-level business credit, and the original course was completed more than 10 years prior to the date of the substitution request.

Subject to the restrictions above, American Council on Education (ACE) recommended credit may also be utilized to fulfill upper level elective requirements. In special cases, ACE recommended credit may be utilized for non-elective requirements. In such cases, a department competency exam may be required. Please speak to an advisor for more information. No more than four upper level courses may be approved for substitution through ACE credit.

Bachelor of Business Administration - Management Program Requirements
Due to the fact that there is substantial overlap with the MGMT pre-fixed courses, a Bachelor of Business Administration Management student may not double major in Human Resource Management.

Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan.

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<tr>
<th>Code</th>
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<th>Credit Hours</th>
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<td>BUSI 3311</td>
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<td>or BUSI 2305</td>
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<td>BUSI 3332</td>
<td>Legal Environment of Business</td>
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### Business Courses

**BUSI 1301. Business Principles. 3 Credit Hours.**
(080) 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 2301. Business Law. 3 Credit Hours.**
The course provides the student with foundational information about the U.S. legal system and dispute resolution, and their impact on business. The major content areas will include general principles of law, the relationship of business and the U.S. Constitution, state and federal legal systems, the relationship between law and ethics, contracts, sales, torts, agency law, intellectual property, and business law in the global context.

**BUSI 2305. Business Statistics. 3 Credit 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. (BUSI 2305 is included in the Business Field of Study.) Prerequisites: MATH 1324 Mathematics for Business & Social Science Majors.

**BUSI 3301. Business Ethics and Corporate Social Responsibility. 3 Credit Hours.**
Study descriptive statistics and the foundations of inferential statistics, including statistical methods of sampling, classifying, analyzing, and presenting numerical data. Learn frequency and sampling distributions, averages, dispersion, hypothesis testing and analyzing up to two populations and population proportions. Additionally, students will be introduced to ANOVA, correlations, regression and Chi-Square analyses. Prerequisite(s): MATH 1324 or higher.

**BUSI 3302. Legal Environment of Business. 3 Credit Hours.**
The study of principles of law relating to the development and sources of law, dispute resolution, ethics, torts, intellectual property, criminal law, contracts, agency, business entity formation, and international law issues in the 21st century.

**BUSI 3304. Introduction to the Global Business Environment. 3 Credit Hours.**
Broad coverage of key concepts and issues in the modern global business environment. Emphasis will be placed on political, financial, cultural and regulatory effects on the operations of businesses in the global environment.

**BUSI 3311. Business Statistics. 3 Credit Hours.**
Study descriptive statistics and the foundations of inferential statistics, including statistical methods of sampling, classifying, analyzing, and presenting numerical data. Learn frequency and sampling distributions, averages, dispersion, hypothesis testing and analyzing up to two populations and population proportions. Additionally, students will be introduced to ANOVA, correlations, regression and Chi-Square analyses. Prerequisite(s): MATH 1324 or higher.

**BUSI 3332. Legal Environment of Business. 3 Credit Hours.**
The study of principles of law relating to the development and sources of law, dispute resolution, ethics, torts, intellectual property, criminal law, contracts, agency, business entity formation, and international law issues in the 21st century.

**BUSI 3344. Introduction to the Global Business Environment. 3 Credit Hours.**
Broad coverage of key concepts and issues in the modern global business environment. Emphasis will be placed on political, financial, cultural and regulatory effects on the operations of businesses in the global environment.

**BUSI 4301. Business Ethics and Corporate Social Responsibility. 3 Credit Hours.**
Examine contemporary organizational ethical issues and challenges. Analyze stakeholder management and sustainability, with emphasis on the manager's corporate social responsibilities to a wide variety of stakeholders. Study ethical dilemmas, decision-making frameworks and approaches to corporate social responsibility. Service Learning in the community is a required component. Prerequisites: BUSI 3301 and MGMT 3301.

**BUSI 4320. Fundamentals of Real Estate. 3 Credit Hours.**
Explore the nature of real estate and how ownership is held. Examine legal descriptions, encumbrances and liens, title transfer, title records. Analyze concepts of home ownership, buying, selling and financial real estate, closing the real estate transaction, and real estate taxes, and other issues in liens, leases and landlord tenant laws.

**BUSI 4333. Business Law II. 3 Credit Hours.**
Study principles of law concerning agency, employment, partnerships, corporations, bankruptcy, secured transactions, creditor/debtor rights, insurance, real and personal property. Examine laws impacting the regulatory environment of business such as consumer protection, environment, anti-trust, and securities law. Prerequisite(s): Junior standing.

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<tr>
<td><strong>BUSI 3344</strong></td>
<td><strong>MGMT 3302</strong></td>
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<tr>
<td>Introduction to the Global Business Environment</td>
<td>Personnel and Human Resource Management</td>
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<td><strong>MGMT 4325</strong></td>
<td><strong>Leadership Theory and Practice</strong></td>
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<td><strong>or MGMT 4302 or MGMT 4384</strong></td>
<td><strong>Productive Relationships or Management Internship</strong></td>
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**Fourth Year**

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1. Lower Level Electives, Any Level Electives, Component Area Options, or Degree Requirements (DEG REQ) may consist of the FOS courses: MATH 1324, ECON 2301, ECON 2302, BCIS 1305, ACCT 2301, ACCT 2302, BUSI 1301, BUSI 2305.
2. CORE REQ (080) recommended courses are PSYC 2301 or SOCI 1301. These are not degree required courses.

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**BUSI 1301. Business Principles. 3 Credit Hours.**

(080) 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 2301. Business Law. 3 Credit Hours.**

The course provides the student with foundational information about the U.S. legal system and dispute resolution, and their impact on business. The major content areas will include general principles of law, the relationship of business and the U.S. Constitution, state and federal legal systems, the relationship between law and ethics, contracts, sales, torts, agency law, intellectual property, and business law in the global context.

**BUSI 2305. Business Statistics. 3 Credit 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. (BUSI 2305 is included in the Business Field of Study.) Prerequisites: MATH 1324 Mathematics for Business & Social Science Majors.

**BUSI 3301. Business Communications and Research. 3 Credit Hours.**

(WI) Study and demonstrate the different types of letters and reports utilized in the modern business environment. Basic business research and APA citation skills will also be an essential component of the course, as well as presentation fundamentals. Completion of this course is recommended in the first semester of enrollment as it is a prerequisite for most business courses.

**BUSI 3311. Business Statistics. 3 Credit Hours.**

Study descriptive statistics and the foundations of inferential statistics, including statistical methods of sampling, classifying, analyzing, and presenting numerical data. Learn frequency and sampling distributions, averages, dispersion, hypothesis testing and analyzing up to two populations and population proportions. Additionally, students will be introduced to ANOVA, correlations, regression and Chi-Square analyses. Prerequisite(s): MATH 1324 or higher.

**BUSI 3332. Legal Environment of Business. 3 Credit Hours.**

The study of principles of law relating to the development and sources of law, dispute resolution, ethics, torts, intellectual property, criminal law, contracts, agency, business entity formation, and international law issues in the 21st century.

**BUSI 3344. Introduction to the Global Business Environment. 3 Credit Hours.**

Broad coverage of key concepts and issues in the modern global business environment. Emphasis will be placed on political, financial, cultural and regulatory effects on the operations of businesses in the global environment.

**BUSI 4301. Business Ethics and Corporate Social Responsibility. 3 Credit Hours.**

Examine contemporary organizational ethical issues and challenges. Analyze stakeholder management and sustainability, with emphasis on the manager's corporate social responsibilities to a wide variety of stakeholders. Study ethical dilemmas, decision-making frameworks and approaches to corporate social responsibility. Service Learning in the community is a required component. Prerequisites: BUSI 3301 and MGMT 3301.

**BUSI 4320. Fundamentals of Real Estate. 3 Credit Hours.**

Explore the nature of real estate and how ownership is held. Examine legal descriptions, encumbrances and liens, title transfer, title records. Analyze concepts of home ownership, buying, selling and financial real estate, closing the real estate transaction, and real estate taxes, and other issues in liens, leases and landlord tenant laws.

**BUSI 4333. Business Law II. 3 Credit Hours.**

Study principles of law concerning agency, employment, partnerships, corporations, bankruptcy, secured transactions, creditor/debtor rights, insurance, real and personal property. Examine laws impacting the regulatory environment of business such as consumer protection, environment, anti-trust, and securities law. Prerequisite(s): Junior standing.
BUSI 4334. Employment Law. 3 Credit Hours.
Study laws relating to employment. Explore employer-employee relationships, 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. Prerequisite(s): BUSI 3332 or MGMT 3302.

BUSI 4345. International Business Law. 3 Credit Hours.
Study international commercial business and the legal environment. Learn 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.

BUSI 4354. Global Business Practices. 3 Credit Hours.
Study basic international business concepts, cultural literacy, and discipline specific content applied to practical experiences and activities related to the visited foreign country. 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. Prerequisite(s): Junior or senior standing. BUSI 4354, MGMT 4356, or MKTG 4356 may not be taken concurrently. Field assignment fee of $75.

BUSI 4359. Business Strategy. 3 Credit Hours.
(WI) Concepts and principles of accounting, economics, finance, management, marketing, and quantitative methods relevant to developing successful strategy. Examine problem solving and business decision making. Appropriate for senior business majors during their last semester. Prerequisite(s): ACCT 2301, ACCT 2302, ECON 2301, FIN 3301, BUSI 3311, MGMT 3301 and MKTG 3301. A materials fee of $45 is required for needed course materials.

BUSI 4361. General Business Seminar. 3 Credit Hours.
Study selected topics in dealing with problems or unique needs of business. Engage in independent research, reading and discussions under the personal direction of the instructor, topics may vary according to student need. May be repeated for credit as topics vary. Prerequisite(s): Permission to enroll is required.

BUSI 4363. Small Business Consulting. 3 Credit Hours.
Study selected problems in diagnosing and analyzing problems of small business clients, and prepare formal written reports and recommendations for client implementation. Engage in independent research, reading and discussions under the personal direction of the instructor. Topics may vary according to student need. Prerequisite(s): Senior standing and permission of department chair.

BUSI 4388. Business Problems. 1-3 Credit Hours.
Study selected problems in business. Engage in independent research, reading and discussions under the personal direction of the instructor. Topics may vary according to student need. May be repeated with permission of the department chair. Prerequisite(s): Senior standing and permission of department chair.

BUSI 5090. Business Comprehensive Examination. 0 Credit Hours.
Study and take the business examination for non-thesis students. Register for the comprehensive examination during final semester of graduate coursework concurrently with BUSI 5359, or upon permission of advisor. All comprehensive examinations will be written, but an oral component may also be required. A maximum of three attempts will be allowed. Thesis students do not take this examination.

BUSI 5310. Business Research Methods. 3 Credit Hours.
Study nature, scope, and significance of business research and research methodology. Develop primary research methods with applications to specific problems. Learn the place of quantitative methods in research and individual investigation, and report on current problems in a selected field of interest. Prerequisite(s): BUSI 3311 or approved leveling in statistics.

BUSI 5312. Managerial Statistics. 3 Credit Hours.
Explore applied descriptive and inferential statistical calculations. Examine statistics as a decision-making tool under uncertainty, probability, confidence intervals, hypothesis testing, ANOVA, correlation, regression, and statistical process control in the context of business and organization. Prerequisite(s): BUSI 3311 or approved leveling statistics.

BUSI 5315. International Business Law. 3 Credit Hours.
Study international commercial business and the legal environment in which it operates. Explore 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.

BUSI 5354. Global Business Practices. 3 Credit Hours.
Study basic international business concepts, cultural literacy, and discipline specific content applied to practical experiences and activities in the visited foreign country. 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. Prerequisite(s): Admission into a COBA graduate program and permission of instructor. Field assignment fee of $75.

BUSI 5359. Business Strategy Seminar. 3 Credit Hours.
Develop an integrated view of the business functions addressed in the MBA core curriculum. Apply case analysis methodology for evaluating complex business situations, developing strategic alternatives, and recommending effective solutions. A culminating capstone interdisciplinary case study project is a required part of the course. Students must make a B on this project to pass the course and a B in the course to graduate. Prerequisite(s): ACCT 5303, FIN 5307, BUSI 5310, MGMT 5301 and MKTG 5308. A student may take one of these concurrently with the permission of the instructor. A materials fee of $45 is required for needed course materials.

Management Courses

MGMT 3301. Principles of Management. 3 Credit Hours.
Study the basic managerial functions of planning, organizing, staffing, directing, and controlling resources to accomplish organizational goals. Special emphasis on the systems concept of management and role of the manager in each level of the organization.
MGMT 3302. Personnel and Human Resource Management. 3 Credit Hours.
Study 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 3303. Supervisory Management. 3 Credit Hours.
Investigate the role, function, and responsibilities of the supervisor in modern organizations through study of sociological and psychological theories in human relations. Emphasis is on development of supervisory skills in communications, motivation, discipline, morale, and grievances as they arise in superior-subordinate relationships. Prerequisite(s): MGMT 3301 or permission of department chair.

MGMT 3310. Entrepreneurship I. 3 Credit Hours.
Learn how to identify and evaluate opportunities that may become the foundation for a new business ventures. Learn to develop a new business venture using the business model canvas. Assess the value of a concept and explore opportunity recognition, innovation and creativity, the legal structure of business, and types of entrepreneurial ventures. Prior knowledge in basic business fundamentals and good writing skills are preferred, but not required.

MGMT 3350. Organizational Behavior. 3 Credit Hours.
(WI) Analyze behavior of people at work in all types of organizations. Learn 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. Prerequisite(s): MGMT 3301 and BUSI 3301.

MGMT 4302. Productive Relationships. 3 Credit Hours.
Examine the practicals and theories related to dealing with human behavior. Emphasis on identifying and classifying behavior in order to better understand behavior and to develop strategies for effectively managing interpersonal relationships. A materials fee of $45 is required for needed course materials. Prerequisite(s): MGMT 3301 and BUSI 3301.

MGMT 4303. Managing Compensation. 3 Credit Hours.
Understand the various factors that affect the two important compensation decisions: How to (pay method) and how much (pay level) an organization should pay its employees. Emphasis is placed on the understanding of basic concepts, theories, current trends, and legal and social requirements related to the issue of compensation. Prerequisites: BUSI 3301 and MGMT 3302.

MGMT 4304. Recruitment and Selection of Human Resources. 3 Credit Hours.
Study recruitment and selection of human resources for organizations. Examine optimal utilization of human resources within organizations, and the use of tests and other techniques in human resource management. Prerequisite(s): MGMT 3302 and BUSI 3301.

MGMT 4305. Human Resource Development. 3 Credit Hours.
Learn practical and theoretical approaches to training and development of employees in an organization. Study role and scope of training and development functions, philosophies, strategies, needs analysis, development of program content, and evaluation Prerequisite(s): MGMT 3302 and BUSI 3301.

MGMT 4306. Employer and Labor Relations. 3 Credit Hours.
Study collective bargaining, labor market fundamentals, unionism, and related issues of labor economics. Prerequisite(s): MGMT 3301.

MGMT 4310. Entrepreneurship II. 3 Credit Hours.
Develop skills required to manage and grow a new venture past the start-up. Apply general business concepts to the challenges facing entrepreneurs. Draw on a broad range of business disciplines including management, marketing, finance, and accounting to develop a business plan. As such, background knowledge in these areas, as well as good writing skills, is strongly preferred, but not required. Prerequisite(s): MGMT 3301 or permission of department chair.

MGMT 4321. Production and Operations Management. 3 Credit Hours.
Study industrial organization, scientific management, planning and control, building locations and layouts, wage rates, corporation relationships, and research. Prerequisite(s): MGMT 3301 and BUSI 3311.

MGMT 4322. Management Science. 3 Credit Hours.
Learn quantitative techniques of decision-making with an emphasis on managerial needs. Study discipline of continuous improvement in managerial decision-making. Analyze problem definition, data gathering and analysis, process improvement, improvement control, and be able to make recommendations to improve business results. Prerequisite(s): MGMT 3301 and BUSI 3311.

MGMT 4325. Leadership Theory and Practice. 3 Credit Hours.
Study leadership theories and issues with practical application of newer leadership models in contemporary organizations. Explore facets of both leadership and followership, along with the impact of the particular organizational setting and situation. Explore situation analysis through active reflection, analysis of case studies, simulations, and popular business press treatment of leadership situations. Prerequisite(s): BUSI 3301 and MGMT 3301.

MGMT 4340. Management Seminar. 3 Credit Hours.
Study current issues in management. Analyze readings from current management publications and other related periodicals. May be repeated for credit when topics vary. Prerequisite(s): 15 hours of MGMT or permission of department chair.

MGMT 4354. International Management. 3 Credit Hours.
Study the international dimensions of the marketplace and environment related to management. Examine the role of culture within international strategic management, organizational behavior and human resource management. Prerequisite(s): MGMT 3301, BUSI 3301 and BUSI 3344.

MGMT 4356. Global Management Practices. 3 Credit Hours.
Study basic international business concepts, cultural literacy, and discipline specific content applied to practical experiences and activities in a visited foreign country. A study abroad at the student’s expense is required. Student must complete a minimum of six hours of COBA sponsored study abroad toward degree completion. Prerequisite(s): Junior or senior standing. BUSI 4354, MGMT 4356, or MKTG 4356 may not be taken concurrently. Field assignment fee of $75.

MGMT 4360. Emergency Management. 3 Credit Hours.
Learn theories, principles and approaches to emergency management. Study the Philosophy of Comprehensive Emergency Management (CEM) with its four phases of preparedness, mitigation, response, and recovery. Analyze past disasters presented along with their attendant policy formations leading to the FEMA all hazards approach.
MGMT 4370. Introduction to Project Management. 3 Credit Hours.
This course provides a comprehensive overview of project management. The culture, principles, and basic techniques of project management are addressed using the project life-cycle as the primary organizational guideline. The project management functions of planning, organizing, motivating and controlling with an emphasis on the application to business and technology are explained. Basic tools of project management such as work breakdown structure, scheduling, earned value analysis, and risk management are explained and demonstrated. Prerequisites: BUSI 3301, BUSI 3311, MGMT 3301; Materials Fee: $35 for a simulation experience.

MGMT 4384. Management Internship. 3 Credit Hours.
Participate in a management related position with a public or private business organization that is preapproved and supervised. May be repeated for a total of 6 credit hours. Prerequisite(s): MGMT 3301 and permission of department chair. Field experiences fee: $75.

MGMT 4388. Management Problems. 1-3 Credit Hours.
Study selected problems in management. Engage in independent research, reading and discussions under the personal direction of the instructor. Topics may vary according to student need. May be repeated with permission of department chair. Prerequisite(s): Management and permission of department chair.

MGMT 5090. Management Comprehensive Examination. 0 Credit Hours.
Study and take the management examination for Non-thesis students. Register for the comprehensive examination during final semester of graduate coursework, or upon permission of advisor. All comprehensive examinations will be written, but an oral component may also be required. A maximum of three attempts will be allowed. Thesis students do not take this examination.

MGMT 5301. Organizational Behavior. 3 Credit Hours.
Learn behavioral theory in organizational context. Study individual and group dynamics in the business environment. Specific emphasis given to leadership, motivation, communication, employee supervision, and morale. Prerequisite(s): Management leveling.

MGMT 5302. Sustainable Business: A One Planet Approach. 3 Credit Hours.
The leaders of today's organizations must navigate the challenges surrounding sustainability. Sustainability relates to the creation of long-term value for the triple bottom line of People, Planet and Profit through the adroit management of a firm's social, environmental, and economic impact. This course will provide students with the understanding and tools necessary to integrate sustainability into the business disciplines (marketing, finance, operations, etc.), emphasize how sustainability challenges can be turned into strategic competitive advantage, explore emerging market opportunities for sustainable products and services, and underscore the role of leadership in innovating, organizing, and managing the changes necessary to adopt a "one-planet" approach to survive and thrive in this rapidly changing environment. Prerequisite(s): Management leveling.

MGMT 5305. Analytical Methods of Management Decisions. 3 Credit Hours.
Study analytical techniques which may be used to facilitate decisions analysis. Learn concepts of utility, break even analysis, network models, linear programming, game theory and computer simulation. Use course activity to survey analytical techniques which may be used to facilitate analysis of alternative decisions and practice in applying the techniques through problem solving. Prerequisite(s): BUSI 3311 or MATH 3300 and graduate standing.

MGMT 5306. Influence Organizational Productivity By Interpersonal Relationships. 3 Credit Hours.
Learn the practicals and theories related to interpersonal behavior and its influence on organizational productivity. Learn to identify and classify behavior in order to better understand behavior and to develop strategies for creating productive relationships with others. Particular emphasis is directed toward the impact of interpersonal behavior in business organizations and the potential effect on productivity. A materials fee of $45 is required for needed course materials.

MGMT 5307. Responsibilities and Ethics of Leadership. 3 Credit Hours.
Analyze an organization's social and environmental responsibilities to its employees, customers, and other key stakeholder groups. Emphasis is given to the case study method for evaluating the performance of various organizations. Develop a theoretical framework for understanding ethics, principles and values of leadership as they affect the organization, the organizational environment, and society. Prerequisite(s): Management Leveling.

MGMT 5308. Designing Organizations for Sustainable Effectiveness. 3 Credit Hours.
Examine theories, processes and “fit” models of organization design and alignment of structure, technology, information systems, reward systems, people and culture, and management processes with organizational goals. Emphasis is on maximizing the triple bottom line for sustainable effectiveness and how organizations can be led and managed so they are economically, socially, and environmentally sustainable. Prerequisite(s): Management leveling.

MGMT 5309. Global Leadership for Sustainability. 3 Credit Hours.
This course is the integrating capstone course for the M$ One Planet Leadership program. Examines both mainstream and emerging theories and approaches to leadership, including models of leadership for sustainability and developing the global mindset necessary for flourishing enterprises to maximize the triple bottom line. Applies leadership principles and models to varied organizational situations with a primary focus on developing leaders who can effectively deal with the economic, social, and environmental challenges global leaders face in today's volatile and chaotic business climate. A culminating capstone sustainability case study project is a required part of the course. Students must make a B on this project to pass the course and a B in the course to graduate. Prerequisite(s): Students must have completed or be currently enrolled in the core courses for the program, MGMT 5301, MGMT 5308, & MGMT 5368, or instructor approval.

MGMT 5310. Leadership Formation and Development. 3 Credit Hours.
This course examines both mainstream and emerging theories and approaches to leadership development and formation, with an emphasis on case study and experiential methods of examining the application of leadership principles and models. It provides each student the opportunity to focus on developing their personal and organizational abilities and skills to become triple bottom line leaders who can better resolve the economic, social and environmental issues of the global, Internet age. Prerequisite(s): Management leveling.

MGMT 5311. Sustainable Operations & Services. 3 Credit Hours.
Focuses on providing students with a broad understanding and knowledge of operations and service management concepts. Emphasis will be placed on incorporating various aspects of sustainability, while designing, managing and controlling business operations and services. In addition, students will be exposed to several analytical tools, models and methodologies that are necessary to design, develop and evaluate various sustainable business operations. Prerequisite: Management and Statistics Leveling.
MGMT 5315. International Management for Sustainability. 3 Credit Hours.
This course will focus on international business management through a sustainability lens. Seminal and current research along with relevant real-world examples will be used to expose students to theories and frameworks pertinent to international business functions and cross-cultural management. The course will sensitize students to global business environment opportunities and stimulate generation of team-based international business solutions contributing to sustainable development and consistent with the triple bottom line approach. Prerequisite(s): Management leveling.

MGMT 5320. Negotiations. 3 Credit Hours.
Learn distributive negotiation, integrative negotiation, biases and pitfalls in negotiation, building trust, developing a negotiation style, power, persuasion, ethics, creativity and problem solving. Theoretical lecture/discussion and practical application/skill development, including in-class role plays, are used in this course. A materials fee of $40 is required for needed course materials.

MGMT 5330. Cross Sector Partnerships for Sustainability. 3 Credit Hours.
Cross-sector partnerships have proven to be one of the most effective approaches to complex environmental challenges. Through case studies of environmental partnerships, literature on collaboration strategies, reflective journals and field research, students will develop the skills necessary to lead future collaborative sustainability initiatives. Prerequisite(s): Management leveling.

MGMT 5340. Management Seminar. 3 Credit Hours.
Explore selected management topics of current importance to business management. May be repeated once for credit when topics vary.

MGMT 5345. Entrepreneurship. 3 Credit Hours.
The course is designed to cover the fundamentals of entrepreneurship. Students will be provided with tools and methods for successfully developing and launching a new venture. Students will have an opportunity to develop a business plan, and will be exposed to concepts such as creativity, risk-taking, and sustainable entrepreneurship.

MGMT 5350. Project Management. 3 Credit Hours.
Study a comprehensive overview of project management. Analyze culture, principles, and basic techniques of project management using the project life cycle as the primary organizational guideline. Learn project management functions and use basic tools of project management such as work breakdown structure, scheduling, contracting, earned value analysis, and risk management. A materials fee of $35 is required to support a learning simulation.

MGMT 5356. Global Management Practices. 3 Credit Hours.
Study basic international business concepts, cultural literacy, and discipline specific content applied to practical experiences and activities in a visited foreign country. A study abroad at the student's expense is required. Student must complete a minimum of six hours of COBA sponsored study abroad toward degree completion. Prerequisite(s): Admission into a COBA graduate program and permission of instructor. Field experiences fee $75.

MGMT 5368. Development & Change for Learning Organizations. 3 Credit Hours.
Students apply strategies for developing organizational learning using behavioral science. Viewing organizations as complex ecological systems, students will master systems thinking related to organization development so that change efforts improve both the organization and the wider systems within which it operates. Prerequisite(s): MGMT 5301.

MGMT 5384. Management Internship. 3 Credit Hours.
Participate in a management related position with a public or private business organization that is preapproved and supervised. May be repeated for a total of 6 hours credit. Prerequisite(s): Permission of department chair. Field experiences fee $75.

MGMT 5388. Management Problems. 1-6 Credit Hours.
Study problems, topics, and perform research in management within the student's area of interest. Engage in independent research, reading and discussions under the personal direction of the instructor, topics may vary according to student need. This course offers students the opportunity to study. Prerequisite(s): Permission of department chair.

B.B.A. Marketing

OVERVIEW
The Marketing program can unlock a host of opportunities for students interested in becoming ethical business leaders in a global economy. Our faculty are dedicated to providing students with a modern skill set and the knowledge base necessary to pursue a rewarding career in the field of marketing.

Marketing encompasses the essence of the activities we call “business.” It is a dynamic and evolving field that aims to create customer value and to develop lasting customer relationships. Marketers research and identify target markets, engage in product innovation, design comprehensive promotional campaigns, develop and maintain elaborate distribution channels, and champion brands. This is all done in an effort to meet the needs of consumers in an often highly competitive landscape.

Program Level Student Learning Outcomes
The student will be able to:
1. Demonstrate proficiency in written communications.
2. Demonstrate proficiency in oral presentations.
3. Exhibit cross-cultural competencies that will aid in communicating and working with people from different cultures.
4. Design and defend a reasoned resolution to an ethical challenge.
5. Demonstrate knowledge proficiency in the core business disciplines and integrate across multiple business disciplines.
6. Make decisions through business data analysis.
7. Define and explain the practical significance of core/critical marketing concepts.
8. Apply the marketing mix.

Course Substitution Process
Students seeking to apply credits earned elsewhere toward their A&M-Central Texas degree should speak to a college advisor. Students must provide an official course description for each course taken at another institution if they wish to receive credit for it towards their A&M-Central Texas degree. If the course description alone is not sufficient to determine course equivalence, a course syllabus may also be required.

Requests for course substitutions will be denied if any of the following conditions apply:
• There is no available course requirement within the A&M-Central Texas degree that adequately matches the proposed substitution course.
• The proposed course substitution makes it impossible for the student to complete the minimum number of upper-level hours required for the A&M-Central Texas degree
• The proposed course substitution makes it impossible for the student to meet the minimum A&M-Central Texas residency requirement of 30 hours
• The proposed course substitution is for upper-level business credit, and the original course was completed more than 10 years prior to the date of the substitution request.

Subject to the restrictions above, American Council on Education (ACE) recommended credit may also be utilized to fulfill upper level elective requirements. In special cases, ACE recommended credit may be utilized for non-elective requirements. In such cases, a department competency exam may be required. Please speak to an advisor for more information. No more than four upper level courses may be approved for substitution through ACE credit.

Bachelor of Business Administration - Marketing Program Requirements
Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan.

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<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
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<tr>
<td><strong>First Year</strong></td>
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<tr>
<td>Fall</td>
<td>CORE REQ Communications (010)</td>
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<td>MATH 1324 Mathematics for Business &amp; Social Sciences (or CORE REQ 020)</td>
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<td>CORE REQ Life and Physical Science (030)</td>
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<td>CORE REQ Creative Arts (050)</td>
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<td>ACCT 2301 Principles of Financial Accounting (DEG REQ)</td>
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<td>CORE REQ Language, Philosophy and Culture (040)</td>
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<td>CORE REQ Life and Physical Science (030)</td>
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<td>ECON 2301 Principles of Macroeconomics (CORE REQ 090)</td>
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<td>ACCT 2302 Principles of Managerial Accounting (DEG REQ)</td>
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<td>BCIS 1305 Business Computer Applications (DEG REQ)</td>
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<td>or CIS 3300 Computer Technology and Impact</td>
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<td>CORE REQ Government/Political Science (070)</td>
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<td>ECON 2302 Principles of Microeconomics (CORE REQ 090)</td>
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<td>BUSI 3311 Business Statistics</td>
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<td>or BUSI 2305 Business Statistics</td>
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<td>or MATH 1342 Elementary Statistical Methods</td>
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<td>BUSI 3332 Legal Environment of Business</td>
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<td>or BUSI 2301 Business Law</td>
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<td>Spring</td>
<td>BUSI 4301 Business Ethics and Corporate Social Responsibility</td>
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<td>FIN 3301 Financial Management I</td>
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<td>MGMT 3302 Personnel and Human Resource Management</td>
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<td>Spring</td>
<td>BUSI 4301 Business Ethics and Corporate Social Responsibility</td>
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<td></td>
<td>FIN 3301 Financial Management I</td>
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<td>MGMT 3302 Personnel and Human Resource Management</td>
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<td>MKTG 3318 Promotional Strategy</td>
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<td>Any Level Elective</td>
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<tr>
<td><strong>Fourth Year</strong></td>
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<td>Fall</td>
<td>BUSI 3344 Introduction to the Global Business Environment</td>
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<td>MGMT 3316 Consumer Behavior</td>
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<td>MKTG 4305 Digital and Internet Marketing</td>
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<td>CIS 4350 Management Information Systems</td>
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1. Lower Level Electives, Any Level Electives, Component Area Options, or Degree Requirements (DEG REQ) may consist of the FOS courses: MATH 1324, ECON 2301, ECON 2302, BCIS 1305, ACCT 2301, ACCT 2302, BUSI 2301, BUSI 2305.

2. CORE REQ (080) recommended courses are PSYC 2301 or SOCI 1301. These are not degree required courses.
### Business Courses

**BUSI 1301. Business Principles. 3 Credit Hours.**
(080) 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 2301. Business Law. 3 Credit Hours.**
The course provides the student with foundational information about the U.S. legal system and dispute resolution, and their impact on business. The major content areas will include general principles of law, the relationship of business and the U.S. Constitution, state and federal legal systems, the relationship between law and ethics, contracts, sales, torts, agency law, intellectual property, and business law in the global context.

**BUSI 2305. Business Statistics. 3 Credit 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. (BUSI 2305 is included in the Business Field of Study.) Prerequisites: MATH 1324 Mathematics for Business & Social Science Majors.

**BUSI 3301. Business Communications and Research. 3 Credit Hours.**
(WI) Study and demonstrate the different types of letters and reports utilized in the modern business environment. Basic business research and APA citation skills will also be an essential component of the course, as well as presentation fundamentals. Completion of this course is recommended in the first semester of enrollment as it is a prerequisite for most business courses.

**BUSI 3311. Business Statistics. 3 Credit Hours.**
Study descriptive statistics and the foundations of inferential statistics, including statistical methods of sampling, classifying, analyzing, and presenting numerical data. Learn frequency and sampling distributions, averages, dispersion, hypothesis testing and analyzing up to two populations and population proportions. Additionally, students will be introduced to ANOVA, correlations, regression and Chi-Square analyses. Prerequisite(s): MATH 1324 or higher.

**BUSI 3332. Legal Environment of Business. 3 Credit Hours.**
The study of principles of law relating to the development and sources of law, dispute resolution, ethics, torts, intellectual property, criminal law, contracts, agency, business entity formation, and international law issues in the 21st century.

**BUSI 3344. Introduction to the Global Business Environment. 3 Credit Hours.**
Broad coverage of key concepts and issues in the modern global business environment. Emphasis will be placed on political, financial, cultural and regulatory effects on the operations of businesses in the global environment.

**BUSI 4301. Business Ethics and Corporate Social Responsibility. 3 Credit Hours.**
Examine contemporary organizational ethical issues and challenges. Analyze stakeholder management and sustainability, with emphasis on the manager’s corporate social responsibilities to a wide variety of stakeholders. Study ethical dilemmas, decision-making frameworks and approaches to corporate social responsibility. Service Learning in the community is a required component. Prerequisites: BUSI 3301 and MGMT 3301.

**BUSI 4320. Fundamentals of Real Estate. 3 Credit Hours.**
Explore the nature of real estate and how ownership is held. Examine legal descriptions, encumbrances and liens, title transfer, title records. Analyze concepts of home ownership, buying, selling and financial real estate, closing the real estate transaction, and real estate taxes, and other issues in liens, leases and landlord tenant laws.

**BUSI 4333. Business Law II. 3 Credit Hours.**
Study principles of law concerning agency, employment, partnerships, corporations, bankruptcy, secured transactions, creditor/debtor rights, insurance, real and personal property. Examine laws impacting the regulatory environment of business such as consumer protection, environment, anti-trust, and securities law. Prerequisite(s): Junior standing.

**BUSI 4334. Employment Law. 3 Credit Hours.**
Study laws relating to employment. Explore employer-employee relationships, 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. Prerequisite(s): BUSI 3332 or MGMT 3302.

**BUSI 4345. International Business Law. 3 Credit Hours.**
Study international commercial business and the legal environment. Learn 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.

**BUSI 4354. Global Business Practices. 3 Credit Hours.**
Study basic international business concepts, cultural literacy, and discipline specific content applied to practical experiences and activities related to the visited foreign country. 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. Prerequisite(s): Junior or senior standing. BUSI 4354, MGMT 4356, or MKTG 4356 may not be taken concurrently. Field assignment fee of $75.

**BUSI 4359. Business Strategy. 3 Credit Hours.**
(WI) Concepts and principles of accounting, economics, finance, management, marketing, and quantitative methods relevant to developing successful strategy. Examine problem solving and business decision making. Appropriate for senior business majors during their last semester. Prerequisite(s): ACCT 2301, ACCT 2302, ECON 2301, FIN 3301, BUSI 3311, MGMT 3301 and MKTG 3301. A materials fee of $45 is required for needed course materials.

**BUSI 4361. General Business Seminar. 3 Credit Hours.**
Study selected topics in dealing with problems or unique needs of business. Engage in independent research, reading and discussions under the personal direction of the instructor, topics may vary according to student need. May be repeated for credit as topics vary. Prerequisite(s): Permission to enroll is required.
BUSI 4363. Small Business Consulting. 3 Credit Hours.
Study selected problems in diagnosing and analyzing problems of small business clients, and prepare formal written reports and recommendations for client implementation. Engage in independent research, reading and discussions under the personal direction of the instructor. Topics may vary according to student need. Prerequisite(s): Senior standing and permission of department chair.

BUSI 4388. Business Problems. 1-3 Credit Hours.
Study selected problems in business. Engage in independent research, reading and discussions under the personal direction of the instructor. Topics may vary according to student need. May be repeated with permission of the department chair. Prerequisite(s): Senior standing and permission of department chair.

BUSI 5090. Business Comprehensive Examination. 0 Credit Hours.
Study and take the business examination for non-thesis students. Register for the comprehensive examination during final semester of graduate coursework concurrently with BUSI 5359, or upon permission of advisor. All comprehensive examinations will be written, but an oral component may also be required. A maximum of three attempts will be allowed. Thesis students do not take this examination.

BUSI 5310. Business Research Methods. 3 Credit Hours.
Study nature, scope, and significance of business research and research methodology. Develop primary research methods with applications to specific problems. Learn the place of quantitative methods in research and individual investigation, and report on current problems in a selected field of interest. Prerequisite(s): BUSI 3311 or approved leveling in statistics.

BUSI 5312. Managerial Statistics. 3 Credit Hours.
Explore applied descriptive and inferential statistical calculations. Examine statistics as a decision-making tool under uncertainty, probability, confidence intervals, hypothesis testing, ANOVA, correlation, regression, and statistical process control in the context of business and organization. Prerequisite(s): BUSI 3311 or approved leveling in statistics.

BUSI 5315. International Business Law. 3 Credit Hours.
Study international commercial business and the legal environment in which it operates. Explore 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.

BUSI 5354. Global Business Practices. 3 Credit Hours.
Study basic international business concepts, cultural literacy, and discipline specific content applied to practical experiences and activities in the visited foreign country. 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. Prerequisite(s): Admission into a COBA graduate program and permission of instructor. Field assignment fee of $75.

BUSI 5359. Business Strategy Seminar. 3 Credit Hours.
Develop an integrated view of the business functions addressed in the MBA core curriculum. Apply case analysis methodology for evaluating complex business situations, developing strategic alternatives, and recommending effective solutions. A culminating capstone interdisciplinary case study project is a required part of the course. Students must make a B on this project to pass the course and a B in the course to graduate. Prerequisite(s): ACCT 5303, FIN 5307, BUSI 5310, MGMT 5301 and MKTG 5308. A student may take one of these concurrently with the permission of the instructor. A materials fee of $45 is required for needed course materials.

BUSI 5388. Business Problems. 1-6 Credit Hours.
Study selected problems in business, and become acquainted with current research being conducted within the specific area of interest. Participate in directed reading of sources selected in concert by the student and professor. Engage in independent research, reading and discussions under the personal direction of the instructor. Topics may vary according to student need. Prerequisite(s): Permission of department chair.

Marketing Courses

MKTG 3301. Marketing. 3 Credit Hours.
Examine principles and concepts of marketing goods, services, and intangibles by profit and non-profit organizations in a free enterprise and global economy.

MKTG 3312. Public Relations. 3 Credit Hours.
Study the techniques used in planning public relations programs for businesses, schools, churches, and civic associations. Learn press relations, crisis management, advertising, speech writing, and campaign activities. Prerequisite(s): MKTG 3301 and BUSI 3301.

MKTG 3315. Personal Selling. 3 Credit Hours.
Study the role and techniques of personal selling as a component of the marketing mix. Prerequisite(s): MKTG 3301 and BUSI 3301.

MKTG 3316. Consumer Behavior. 3 Credit Hours.
Analyze individual and group behavior of people performing in consumer role. Study buying motives, social class, and research techniques in consumer behavior. Prerequisite(s): MKTG 3301 and BUSI 3301.

MKTG 3317. Retailing. 3 Credit Hours.
Learn fundamental operations of retailing, studying of buying practices, pricing, store locations and layout, sales promotions, personnel management, and stock control. Study design to aid the student seeking a general knowledge of the retail field as well as those specializing in Marketing. Prerequisite(s): MKTG 3301 and BUSI 3301.

MKTG 3318. Promotional Strategy. 3 Credit Hours.
Study a controlled, integrated program of promotional variables. Learn how 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(s): MKTG 3301 and BUSI 3301.

MKTG 3320. Marketing Research. 3 Credit Hours.
Study accurate, objective, and systematic gathering, recording, and analyzing of data about problems relating to marketing goods and services. Prerequisite(s): MKTG 3301, BUSI 3301 and BUSI 3311.

MKTG 4301. Advertising. 3 Credit Hours.
Analyze advertising in modern media. Study the history, design, effects of advertising, and the uses of different media for advertising purposes. Prerequisite(s): MKTG 3301 and BUSI 3301.
MKTG 4302. Services Marketing. 3 Credit Hours.
Learn about service environment. Analyze the most successful service-oriented industries and firms within the world's fastest-growing economic sector. Prerequisite(s): MKTG 3301 and BUSI 3301.

MKTG 4305. Digital and Internet Marketing. 3 Credit Hours.
This course provides a theoretical and practical understanding of digital marketing. Students will learn various digital marketing practices such as managing and executing search engine optimization campaign (e.g., Google AdWords), building an effective website, and converting clicks into purchases through an experiential learning approach. Prerequisite: MKTG 3301.

MKTG 4316. Marketing Strategy. 3 Credit Hours.
Learning how to formulate and implement a strategic marketing plan to try to achieve a sustainable competitive advantage. This course uses practical approaches, including case studies and a marketing plan project. Prerequisites: MKTG 3301, MKTG 3316, and MKTG 3320 or permission of the instructor.

MKTG 4340. Marketing Seminar. 3 Credit Hours.
Examine the current issues/topics in Marketing. May be repeated for credit if the topic varies. Prerequisite(s): MKTG 3301, BUSI 3301 and permission of instructor.

MKTG 4354. International Marketing. 3 Credit Hours.
Study comparative marketing systems, including economic, social, technological, governmental, and political environments as they affect international marketing operations. Prerequisite(s): MKTG 3301, BUSI 3301 and BUSI 3344 or permission of department chair.

MKTG 4356. Global Marketing Practices. 3 Credit Hours.
Study basic international business concepts, cultural literacy, and discipline specific content applied to practical experiences and activities in a visited foreign country. A study abroad at the student's expense is required. Student may complete a maximum of six hours of SOBA sponsored study abroad toward degree completion. Field assignment fee: $75. Prerequisite(s): MKTG 3301, junior or senior standing and permission of instructor. BUSI 4354, MGMT 4356, or MKTG 4356 may not be taken concurrently.

MKTG 4384. Marketing Internship. 1-6 Credit Hours.
Participate in a marketing-related position with a public or private business organization that is preapproved and supervised. Acquiring a new marketing-related position after approval of the internship or the approval of experiences beyond the scope of the student's present job. May be repeated for a total of 6 hours credit. Prerequisite(s): MKTG 3301, Faculty Sponsorship, and permission of department chair. Field experiences fee: $75.

MKTG 4388. Marketing Problems. 1-6 Credit Hours.
Study of selected problems in marketing. Engage in independent research, reading and discussions under the personal direction of the instructor; topics may vary according to student need. May be repeated with permission of department chair. Prerequisite(s): Senior standing and permission of department chair.

MKTG 4389. Special Topics in Marketing. 3 Credit Hours.
Examine current topics in marketing. Explore required readings from current marketing publications and other related periodicals. May be repeated for credit when topics vary. Prerequisite(s): 9 hours of MKTG.

MKTG 5308. Marketing Management. 3 Credit Hours.
Study the planning and coordination of marketing functions specifically related to product, pricing, promotion, and distribution strategies. Explore case analysis and participate in presentation of results. Prerequisite(s): Marketing Leveling.

MKTG 5309. Marketing Strategy. 3 Credit Hours.
Develop the role of product, pricing, promotion, and channel and physical distribution in the development of a firm's integrated marketing program. Study cases used to evaluate and compose alternative courses of action.

MKTG 5310. Integrated Marketing Communications. 3 Credit Hours.
Study concepts associated with Integrated Marketing Communications (IMCs). Learn an experiential learning approach, wherein students apply the concepts learned in the classroom to the creation of an IMC campaign for an organization.

MKTG 5312. Brand Management. 3 Credit Hours.
Learn branding, what it is, how it works, how it acquires and maintains economic and non-economic value. Explore the origins, power, theory, meaning, relevance and practice of brands, brand development, brand metrics and brand management through an experiential learning approach. Prerequisite(s): MKTG 5308 or permission of department chair.

MKTG 5315. International Marketing. 3 Credit Hours.
Study comparative marketing systems, including economic, social, technological, governmental, and political environments as the affect international marketing operations. Students will be required to complete an extensive research project in addition to other course requirements.

MKTG 5340. Marketing Seminar. 3 Credit Hours.
Explore selected marketing topics of current importance to business marketing. May be repeated once for credit when topics vary.

MKTG 5356. Global Marketing Practices. 3 Credit Hours.
Study of basic international business concepts, cultural literacy, and discipline specific content applied to practical experiences and activities in the foreign country. 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. Prerequisite(s) Course: Admission into a COBA graduate program and permission of instructor. Field experiences fee $75.

MKTG 5388. Marketing Problems. 1-3 Credit Hours.
(Credit-variable) Study selected problems in marketing. Engage in independent research, reading and discussions under the personal direction of the instructor; topics may vary according to student need. Prerequisite(s): Permission of department chair.

B.A.A.S. Business Overview
The Bachelor of Applied Arts and Sciences (BAAS) Business program provides the opportunity for students who have earned technical, vocational, or military education and training to complete a baccalaureate degree in business. Upon graduation, BAAS Business students will be equipped to apply their vocational training and skills within a business environment, and will also have learned the foundations needed for advanced business and management degrees.

The BAAS-Business program is offered through the RELLIS Campus for students, in addition to our Killeen campus and online.

Program Level Student Learning Outcomes
The student will be able to:

1. Demonstrate proficiency in written communications.
2. Demonstrate proficiency in oral presentations.
3. Exhibit cross-cultural competencies that will aid in communicating and working with people from different cultures.

4. Design and defend a reasoned resolution to an ethical challenge.

5. Demonstrate knowledge proficiency in the core business disciplines and integrate across multiple business disciplines.

6. Make decisions through business data analysis.

Although the BAAS Business major is in the College of Business Administration, interested students from non-business backgrounds are encouraged to consider if they wish to receive more advanced business training to further their career.

Program Requirements

The program allows students to apply up to 36 semester credit hours of related technical, vocational, or military education and training as the foundation of their occupational specialization in the degree program. To qualify for the program, a minimum of 12 semester credit hours (technical/vocational/military courses) in an occupational specialization area (OSA) is required to qualify for the program. Academic coursework may be taken to meet the 36 semester credit hour requirement, but coursework must be directly related to the area of specialization or business.

Conferred Degrees or Certificates of Completion

A student with a conferred AAS degree or CC equivalent to at least 30 semester credit hours from one of the six regional accreditors shall be considered OSA complete upon admission to the university. A student with a conferred AAS degree or CC from an institution that is non-regionally accredited may also be considered OSA complete as long as the accreditor appears on the Texas Higher Education Coordinating Board’s (THECB) list of recognized nationally accredited agencies. Contact the Office of Recruitment and Undergraduate Admission with questions regarding recognized accreditors.

Occupational Specialization

Military Education

All military evaluated credit, based on ACE recommendations, designated as lower level (L), or 1000-2999 level, will be accepted to fulfill the 36 semester credit hours of occupational specialization. However, the student must meet the initial 12 hours qualification requirement with American Council on Education (ACE) recommended credit from military courses. These are identified in the service transcripts by a designated regulation number. Once the service member meets the minimum 12 hours, relevant lower level ACE recommended military occupational specialty (MOS) credits may be then applied to meet the final 24 hours in the occupational specialization area. In the military transcripts, credits are awarded for the ‘same’ skills multiple times. However, the awarding of credit is at different skill levels. Only the ACE credit at the higher skill level will be accepted for credit in the BAAS-BUSI Occupational Specialization Area. See the Coordinator, Military Services if there are questions concerning skill levels.

Technical/Vocational (non-conferred degree/non-certificate and non-military)

A student that does not have a conferred AAS or CC may apply technical or vocational credit earned at an accredited college to the OSA. The applied credit must comprise an emphasis in a particular discipline (minimum 12 semester credit hours). The student will then be responsible to complete the remaining 24 semester credit hours, either with other relevant technical or vocational credit, military education, training, or academic credit, as previously prescribed.

Training

A student may have participated in work-related training outside of the academic or military education environment. Acceptable training must be related to the student’s technical or vocational emphasis. Students must provide verification of training, which include the number of contact hours. Verification includes transcripts provided by the trainer or training institution or certification of training by the student’s supervisor at the time of the training. Additionally, certificates of completion should be provided with a supervisor’s certification.

College of Business Administration’s academic advisors may recommend semester credit hours based on the number of contact hours. Contact hour conversion to semester credit hour: 15 contact hours = 1 semester credit hour (i.e. 45 contact hours = 3 semester credit hours).

Bachelor of Applied Arts and Science Business

Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan.

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<td>MATH 1324 Mathematics for Business &amp; Social Sciences (CORE REQ 020)</td>
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<td>SPCH 1311 Introduction to Speech Communication (CORE REQ 010)</td>
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### Third Year

**Fall**
- CORE REQ Life and Physical Science (030) 3
- CORE REQ American History (060) 3
- CORE REQ Government/Political Science (070) 3
- ECON 2301 Principles of Macroeconomics (CORE REQ (090)) 3

**Spring**
- BUSI 3301 Business Communications and Research 3
- BUSI 3332 Legal Environment of Business 3
- or BUSI 2301 Business Law 3
- or BCIS 1305 Business Computer Applications 3
- ACCT 2301 Principles of Financial Accounting (CORE REQ (090)) 3

### Fourth Year

**Fall**
- BUSI 4301 Business Ethics and Corporate Social Responsibility 3
- FIN 3301 Financial Management I 3
- MKTG 3301 Marketing 3
- MGMT 3350 Organizational Behavior 3
  - or MGMT 3302 Personnel and Human Resource Management 3
  - or MGMT 3310 Entrepreneurship I 3
  - or MGMT 4310 Entrepreneurship II 3
  - or MGMT 4321 Production and Operations Management 3
  - or MGMT 4325 Leadership Theory and Practice 3
  - or MGMT 4370 Introduction to Project Management 3

**Spring**
- BUSI 4359 Business Strategy 3
- CIS 4350 Management Information Systems 3

### Upper-Level COBA Electives
- 3

### Total Credit Hours
120

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1. This section has the following considerations:
   - May apply conferred Applied Arts and Sciences (A.A.S.) or Certificate of Completion (C.C.)
   - May consist of technical, vocational, or military credit (or a combination)
   - No student will be considered for the BAAS who has less than 12 semester credit hours in the combination of technical, vocational, or military training (12 hours must be technical/vocational training if no military training)
   - With the qualifying 12 semester credit hours, a student may include specified academic electives up to the maximum 30 semester credit hours.
   - A maximum of 30 semester credit hours will be allowed
   - See the College of Business Administration's academic advisors for more information.

2. CORE REQ recommended courses are preferred but are not degree required courses.

### Accounting Courses

**ACCT 2301. Principles of Financial Accounting. 3 Credit Hours.**

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.

**ACCT 2302. Principles of Managerial Accounting. 3 Credit Hours.**

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.

**ACCT 3300. Accounting Concepts. 3 Credit Hours.**

Learn 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. Used to provide for students without a previous accounting background. (Meets requirements for Accounting I.)

**ACCT 3301. Analysis - Using Spreadsheets. 3 Credit Hours.**

Learn theory and application of microcomputer spreadsheet technology applied in accounting, finance, management, and other business disciplines. Stimulate creative initiative and to develop basic skills in performing common business tasks. Credit for both CIS 3301 and ACCT 3301 will not be awarded. Prerequisite(s): ACCT 2301.

**ACCT 3302. Cost Accounting. 3 Credit Hours.**

Learn accounting for material, labor, and manufacturing expenses in both job order and process cost systems. Special emphasis will be given to distribution of service department cost and costing of byproducts and joint products. Prerequisite(s): ACCT 3300 or ACCT 2302.
ACCT 3303. Intermediate Accounting I. 3 Credit Hours.
Study the environment of accounting, development of standards, basic theory, financial statements, worksheets, and the application of generally accepted accounting principles for the business enterprise with emphasis on corporations. Prerequisite(s): ACCT 3300 or ACCT 2301 or permission of department chair.

ACCT 3304. Intermediate Accounting II. 3 Credit Hours.
Continue the study of Intermediate Accounting with a special emphasis on generally accepted accounting principles as applied to the business enterprise. Prerequisite(s): ACCT 3303 or permission of department chair.

ACCT 3305. Governmental Accounting. 3 Credit Hours.
Learn budgeting, accounting, and financial reporting principles and practices for governmental and other not-for-profit entities. Prerequisite(s): ACCT 3303 or permission of department chair.

ACCT 3307. Writing for Accountants. 3 Credit Hours.
(WI) Learn how to improve communication skills for those entering the accounting profession. Study written communication including letter writing, memos, emails, reports, employment resumes, and writing for publication. Special emphasis on organization of thought, critical thinking, and accounting research.

ACCT 3308. Managing Accounting. 3 Credit Hours.
Study the uses of accounting information by management. Accounting procedures and reports essential to management are emphasized, as are cost analysis, cost control, budgeting, and controllership. Prerequisite(s): ACCT 2301 or permission of department chair. Course cannot be counted as part of a degree program for an accounting major.

ACCT 3310. Accounting Information Systems. 3 Credit Hours.
Study the design and implementation of complex accounting information systems. Understand the traditional accounting model and its relationship to each type of accounting information system, including accounts receivable, inventory control, cost accounting, operational budgeting, and capital budgeting. Special emphasis on key elements of a well-designed management control system. Prerequisite(s): ACCT 2301.

ACCT 3387. Cooperative Education. 1-3 Credit Hours.
Integrate academic study with work experience that is relevant to a major or minor. Two-semester minimum requirement 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. Cooperative Education advisor will supervise and assign the final grades. Students may participate in the Cooperative Education but will earn only a maximum of 6 hours credit toward a degree. Prerequisite(s): 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 permission of department chair. Field experience fee $75.

ACCT 4301. Intermediate Accounting III. 3 Credit Hours.
Study financial statement analysis and accounting topics related to financial statement presentation and disclosure. Prerequisite(s): ACCT 3304 or permission of department chair.

ACCT 4303. Advanced Accounting. 3 Credit Hours.
Analyze special phases of partnership accounting, joint ventures, consignments, installment sales, statement of affairs and accounting for insolvent concerns, and business combinations. Prerequisite(s): ACCT 4301 or concurrent registration.

ACCT 4305. Federal Tax Accounting I. 3 Credit Hours.
Study current income tax law and regulations with special emphasis on income tax legislation, treasury and court decisions, departmental rulings, income tax problems and returns, social security, and self-employment taxes. Prerequisite(s): ACCT 2301 and junior standing. Credit for both ACCT 4305 and FIN 4305 will not be awarded.

ACCT 4306. Federal Tax Accounting II. 3 Credit Hours.
Continue the study of current income tax law and tax accounting procedures. Learn about preparation of income tax returns for partnerships and corporations. Prerequisite(s): ACCT 4305 or permission of department chair. Credit for both ACCT 4306 and FIN 4306 will not be awarded.

ACCT 4323. Ethics for Accountants. 3 Credit Hours.
Learn auditing and ethical responsibilities for auditors and other accountants in both public and private practice. Study generally accepted auditing standards, the standard audit report, legal responsibilities of accountants, the Code of Professional Conduct for accountants, independence, and objectivity. Special emphasis on case studies involving ethical reasoning, ethical decision making. Prerequisite(s): ACCT 3304.

ACCT 4324. Auditing. 3 Credit Hours.
Learn procedures used by auditors and accounting practitioners to gather and evaluate information and report on their findings. Special emphasis on evaluation of internal control, planning an audit or other engagement, compliance testing, substantive testing, statistical sampling, evaluation of findings, and preparation of reports. Prerequisite(s): ACCT 3304.

ACCT 4335. Financial Statement Analysis. 3 Credit Hours.
Learn the use of financial statements to analyze the position of a firm. Study analysis techniques and limitations imposed by generally accepted accounting principles. Prerequisite(s): ACCT 3303.

ACCT 4350. Management Information Systems. 3 Credit Hours.
(WI) Study management issues related to business information systems designed to meet the informational needs of the various business subsystems. Special emphasis on the concepts of systems development, security, privacy and ethics associated with information systems. Credit will be awarded for only one of the following courses: ACCT 4350, CIS 4350, or MGMT 4350. Prerequisite(s): COSC 1301 or 3 hours of Advanced CIS or ACCT 3301 or CIS 3301 and junior standing.

ACCT 4357. Accounting Theory. 3 Credit Hours.
Study of the generally accepted accounting rules and principles that govern the practical application of accounting methods. Prerequisite(s): ACCT 3303 and ACCT 3304.

ACCT 4388. Accounting Problems. 1-3 Credit Hours.
Study selected problems in accounting. Engage in independent research, reading and discussions under the personal direction of the instructor; topics may vary according to student need. May be repeated with permission of department chair. Prerequisite(s): Senior standing and permission of department chair.

ACCT 4389. Special Topics in Accounting. 3 Credit Hours.
Study current issues and developments in accounting. Prerequisite(s): Permission of instructor.

ACCT 5090. Comprehensive Examination. 0 Credit Hours.
Study and take the accounting examination for Non-thesis students. Register for the comprehensive examination during final semester of graduate coursework, or upon permission of advisor. All comprehensive examinations will be written, but an oral component may also be required. A maximum of three attempts will be allowed. Thesis student do not take this examination.
ACCT 5300. Foundations of Accounting. 1 Credit Hour.
Learn basic knowledge of accounting necessary to begin the MBA program. Appropriate for students who have not had prior accounting courses, or who need a refresher course, prior to their MBA studies. Study the accounting process, accounting cycle, preparation of the basic financial statements in corporate annual reports, analysis of corporate financial statements using ratio analysis, the study of cost behavior, and cost-volume-profit analysis.

ACCT 5303. Accounting and Management. 3 Credit Hours.
Study accounting as related to problems of making business and economic decisions. Learn both financial and managerial accounting. MS-ACC majors may not take this course for credit. Prerequisite(s): Required accounting leveling or permission of instructor.

ACCT 5305. Accounting Theory. 3 Credit Hours.
Study the theory of accounting as it has developed in the economy of the United States. Particular emphasis is on concepts, income measurement, and valuation of assets, including valuation and measurement of equities. Application of accounting theory to contemporary problems is analyzed with cases and research papers on selected areas.

ACCT 5310. Advanced Accounting Systems. 3 Credit Hours.
Comprehensive study of computerized accounting systems. Study design, implementation, operation, control and audit techniques of accounting information.

ACCT 5315. Business Law for Accountants. 3 Credit Hours.
Study current business law topics which concern accountants in governing their practice and working with clients.

ACCT 5320. Corporate Tax. 3 Credit Hours.
Analyze formation and capital structures, partial liquidations, S Corporations, accumulated earnings tax, and personal holding companies.

ACCT 5330. Current Topics in Auditing. 3 Credit Hours.
Explore current topics in auditing.

ACCT 5335. Estate Planning. 3 Credit Hours.
Study federal estate and gift taxation, as well as advanced family tax planning. Explore issues in taxation of decedent’s estate and lifetime gifts, and valuation of properties subject to gift and estate taxes.

ACCT 5340. Ethics in Accounting. 3 Credit Hours.
Study of ethics as it relates to problems in business and economic decisions. Explore integration of ethical reasoning, objectivity, independence, and other core values important for the development of a professional accountant. Analyze ethical lapses that have occurred in business and the accounting profession, with readings, problems, and cases requiring use of business and accounting data to evaluate the ethical decision process.

ACCT 5345. Financial Statement Analysis. 3 Credit Hours.
Learn an analytical approach to the application of finance and accounting principles relevant to the analysis of financial statements.

ACCT 5350. Forensic Accounting. 3 Credit Hours.
Learn the complete cycle of investigative auditing. Examine business, through study and evaluation of internal control, and corroborative evidence on the details of account balances. Explore flow-charts, test planning, use of statistical samples, computer controls and management audits. Gain experience through team performance on an extended case audit.

ACCT 5355. International Accounting. 3 Credit Hours.
Examine accounting issues unique to multinational enterprises and international business activities.

ACCT 5360. Information Technology Audit. 3 Credit Hours.
Learn controls, issues and audit techniques to explore the use of a computers as an auditing tool. Utilize generalized audit software currently used in auditing practices. Particular emphasis on computer fraud, security measures and controls in advanced online, teleprocessing systems.

ACCT 5365. Accounting Research Seminar. 3 Credit Hours.
Explore accounting topics in an online environment. Emphasis is on basic accounting research in the areas of accounting theory, accounting practice, and other accounting topics in preparation for research needs encountered in the business environment and on the CPA exam. Stimulate creative initiative in performing accounting tasks and develop basic skills necessary to effectively research accounting and other topics which may be encountered in a business environment.

ACCT 5370. Auditing Seminar. 3 Credit Hours.
Analyze current issues and research in auditing, attestation, and financial disclosures.

ACCT 5375. Tax Research Seminar. 3 Credit Hours.
Develop the technical and research skills needed to address contemporary tax issues. Study tax issues, formulate research questions and develop the research skills needed to address them. Special emphasis on major tax services, evaluating relevant authorities and communicating findings in a professionally written research memorandum, familiarization of federal tax policies and procedures, and the authorities that govern tax practice.

ACCT 5388. Accounting Problems. 1-3 Credit Hours.
Study of selected problems in accounting. Engage in independent research, reading and discussions under the personal direction of the instructor, topics may vary according to student need. Prerequisite(s): Permission of department chair.

ACCT 5389. Special Topics in Accounting. 3 Credit Hours.
Study selected accounting topics of current importance to business management. May be repeated once for credit when topics vary.

ACCT 5395. Current Topics in Accounting. 3 Credit Hours.
Explore selected topics of new or current interest in financial accounting.

Business Courses

BUSI 1301. Business Principles. 3 Credit Hours.
(080) 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 2301. Business Law. 3 Credit Hours.
The course provides the student with foundational information about the U.S. legal system and dispute resolution, and their impact on business. The major content areas will include general principles of law, the relationship of business and the U.S. Constitution, state and federal legal systems, the relationship between law and ethics, contracts, sales, torts, agency law, intellectual property, and business law in the global context.
BUSI 2305. Business Statistics. 3 Credit 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. (BUSI 2305 is included in the Business Field of Study.) Prerequisites: MATH 1324 Mathematics for Business & Social Science Majors.

BUSI 3301. Business Communications and Research. 3 Credit Hours.
(WI) Study and demonstrate the different types of letters and reports utilized in the modern business environment. Basic business research and APA citation skills will also be an essential component of the course, as well as presentation fundamentals. Completion of this course is recommended in the first semester of enrollment as it is a prerequisite for most business courses.

BUSI 3311. Business Statistics. 3 Credit Hours.
Study descriptive statistics and the foundations of inferential statistics, including statistical methods of sampling, classifying, analyzing, and presenting numerical data. Learn frequency and sampling distributions, averages, dispersion, hypothesis testing and analyzing up to two populations and population proportions. Additionally, students will be introduced to ANOVA, correlations, regression and Chi-Square analyses. Prerequisite(s): MATH 1324 or higher.

BUSI 3332. Legal Environment of Business. 3 Credit Hours.
The study of principles of law relating to the development and sources of law, dispute resolution, ethics, torts, intellectual property, criminal law, contracts, agency, business entity formation, and international law issues in the 21st century.

BUSI 3344. Introduction to the Global Business Environment. 3 Credit Hours.
Broad coverage of key concepts and issues in the modern global business environment. Emphasis will be placed on political, financial, cultural and regulatory effects on the operations of businesses in the global environment.

BUSI 4301. Business Ethics and Corporate Social Responsibility. 3 Credit Hours.
Examine contemporary organizational ethical issues and challenges. Analyze stakeholder management and sustainability, with emphasis on the manager's corporate social responsibilities to a wide variety of stakeholders. Study ethical dilemmas, decision-making frameworks and approaches to corporate social responsibility. Service Learning in the community is a required component. Prerequisites: BUSI 3301 and MGMT 3301.

BUSI 4320. Fundamentals of Real Estate. 3 Credit Hours.
Explore the nature of real estate and how ownership is held. Examine legal descriptions, encumbrances and liens, title transfer, title records. Analyze concepts of home ownership, buying, selling and financial real estate, closing the real estate transaction, and real estate taxes, and other issues in liens, leases and landlord tenant laws.

BUSI 4333. Business Law II. 3 Credit Hours.
Study principles of law concerning agency, employment, partnerships, corporations, bankruptcy, secured transactions, creditor/debtor rights, insurance, real and personal property. Examine laws impacting the regulatory environment of business such as consumer protection, environment, anti-trust, and securities law. Prerequisite(s): Junior standing.

BUSI 4334. Employment Law. 3 Credit Hours.
Study laws relating to employment. Explore employer-employee relationships, 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. Prerequisite(s): BUSI 3332 or MGMT 3302.

BUSI 4345. International Business Law. 3 Credit Hours.
Study international commercial business and the legal environment. Learn 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.

BUSI 4354. Global Business Practices. 3 Credit Hours.
Study basic international business concepts, cultural literacy, and discipline specific content applied to practical experiences and activities related to the visited foreign country. 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. Prerequisite(s): Junior or senior standing. BUSI 4354, MGMT 4356, or MKTG 4356 may not be taken concurrently. Field assignment fee of $75.

BUSI 4359. Business Strategy. 3 Credit Hours.
(WI) Concepts and principles of accounting, economics, finance, management, marketing, and quantitative methods relevant to developing successful strategy. Examine problem solving and business decision making. Appropriate for senior business majors during their last semester. Prerequisite(s): ACCT 2301, ACCT 2302, ECON 2301, FIN 3301, BUSI 3311, MGMT 3301 and MKTG 3301. A materials fee of $45 is required for needed course materials.

BUSI 4361. General Business Seminar. 3 Credit Hours.
Study selected topics in dealing with problems or unique needs of business. Engage in independent research, reading and discussions under the personal direction of the instructor, topics may vary according to student need. May be repeated for credit as topics vary. Prerequisite(s): Permission to enroll is required.

BUSI 4363. Small Business Consulting. 3 Credit Hours.
Study selected problems in diagnosing and analyzing problems of small business clients, and prepare formal written reports and recommendations for client implementation. Engage in independent research, reading and discussions under the personal direction of the instructor. Topics may vary according to student need. Prerequisite(s): Senior standing and permission of department chair.

BUSI 4388. Business Problems. 1-3 Credit Hours.
Study selected problems in business. Engage in independent research, reading and discussions under the personal direction of the instructor. Topics may vary according to student need. May be repeated with permission of the department chair. Prerequisite(s): Senior standing and permission of department chair.

BUSI 5090. Business Comprehensive Examination. 0 Credit Hours.
Study and take the business examination for non-thesis students. Register for the comprehensive examination during final semester of graduate coursework concurrently with BUSI 5359, or upon permission of advisor. All comprehensive examinations will be written, but an oral component may also be required. A maximum of three attempts will be allowed. Thesis students do not take this examination.
BUSI 5310. Business Research Methods. 3 Credit Hours.
Study nature, scope, and significance of business research and research methodology. Develop primary research methods with applications to specific problems. Learn the place of quantitative methods in research and individual investigation, and report on current problems in a selected field of interest. Prerequisite(s): BUSI 3311 or approved leveling in statistics.

BUSI 5312. Managerial Statistics. 3 Credit Hours.
Explore applied descriptive and inferential statistical calculations. Examine statistics as a decision-making tool under uncertainty, probability, confidence intervals, hypothesis testing, ANOVA, correlation, regression, and statistical process control in the context of business and organization. Prerequisite(s): BUSI 3311 or approved leveling statistics.

BUSI 5315. International Business Law. 3 Credit Hours.
Study international commercial business and the legal environment in which it operates. Explore 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.

BUSI 5354. Global Business Practices. 3 Credit Hours.
Study basic international business concepts, cultural literacy, and discipline specific content applied to practical experiences and activities in the visited foreign country. 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. Prerequisite(s): Admission into a COBA graduate program and permission of instructor. Field assignment fee of $75.

BUSI 5359. Business Strategy Seminar. 3 Credit Hours.
Develop an integrated view of the business functions addressed in the MBA core curriculum. Apply case analysis methodology for evaluating complex business situations, developing strategic alternatives, and recommending effective solutions. A culminating capstone interdisciplinary case study project is a required part of the course. Students must make a B on this project to pass the course and an A in the course to graduate. Prerequisite(s): ACCT 5303, FIN 5307, BUSI 5310, MGMT 5301 and MKTG 5308. A student may take one of these concurrently with the permission of the instructor. A materials fee of $45 is required for needed course materials.

BUSI 5388. Business Problems. 1-6 Credit Hours.
Study selected problems in business, and become acquainted with current research being conducted within the specific area of interest. Participate in directed reading of sources selected in concert by the student and professor. Engage in independent research, reading and discussions under the personal direction of the instructor. Topics may vary according to student need. Prerequisite(s): Permission of department chair.

Computer Information Systems Courses

CIS 3300. Computer Technology and Impact. 3 Credit Hours.
Explores computer technology with special attention to its impact on home, work, and school. Many topics are presented: hardware and software fundamentals, essential applications, telecommunications, internet, artificial intelligence, programming, and the future of these technologies. Students work with word processing, spreadsheet, database, and presentation software; other applications; and a programming language. No prior computer experience necessary.

CIS 3301. Business Analysis with Spreadsheets. 3 Credit Hours.
Examine theory and application of microcomputer technology applied in accounting, finance, management, and other business disciplines. Develop creative initiative, and study basic analytical skills in performing common business tasks. Credit for both CIS 3301 and ACCT 3301 will not be awarded.

CIS 3302. Introduction to Business Analytics. 3 Credit Hours.
Examine theory and application of business analytics applied in accounting, finance, marketing, management, and other business disciplines. Develop basic analytical skills to gain insights and make better decisions. Special emphasis on descriptive statistics, data visualization, descriptive data mining, linear regression, forecasting, optimization models, spreadsheet models, Monte Carlo simulation, and decision analysis.

CIS 3303. Programming Logic and Design. 3 Credit Hours.
This course introduces computer programming and problem solving in a structured program logic environment. Study the logic of decision-making, nested looping, multidimensional arrays, implementation of the structure theorem and Boolean algebra. Utilize structured flowcharts, structured pseudocode, hierarchy charts and decision tables, in order to document logical problem solutions. The course focuses on business problem solving and does not count as a programming language. No prior programming experience is necessary.

CIS 3304. Topics in Computer Information Systems. 3 Credit Hours.
Examine selected topics in programming languages, programming techniques, or job control languages. May be repeated once for credit as topics vary. Prerequisite(s): Varies with topic.

CIS 3305. Operating Systems Theory and Practice. 3 Credit Hours.
Study the history, development, and principles of computer operating systems and their variants in mainframe, minicomputer, server, and microcomputer application environments. Explore preferred operating systems representing various hardware environments. Special emphasis on related software issues, programming capabilities, and job control languages. Prerequisite(s): CIS 3303 or permission of department chair.

CIS 3306. Data Visualization. 3 Credit Hours.
Data visualization makes it easier to understand the data. The goal of this course is to introduce students to data visualization including both the principles and techniques. Students will learn the value of visualization, specific techniques in information visualization and scientific visualization, and how to understand how to best leverage visualization methods.

CIS 3307. Application Project with Laboratory. 3 Credit Hours.
Develop and document a software product using a formal software development process. Projects of value are actively sought from local businesses, governments, or nonprofit organizations when possible. May be repeated for credit when topics change. Prerequisite(s): Varies with topic.

CIS 3312. Technical Support Management and Operations. 3 Credit Hours.
Study the scope, significance, job skills, training, software availability, and support problems of technical support within the technology industry. Develop technical support skills, with an emphasis on the use of resources, troubleshooting, and customer relations.
CIS 3315. Web Site Development and Design. 3 Credit Hours.
This course introduces students to basic web design using HTML and CSS. The course does not require any prior knowledge of HTML or web design. Students learn how to plan and design effective web pages; implement web pages by writing HTML and CSS code; enhance web pages with the use of page layout techniques, text formatting, graphics, images, and multimedia; and produce a functional, multi-page website.

CIS 3330. C++ Programming. 3 Credit Hours.
Study structured C++ programming using microcomputers. Special emphasis on syntax, operators, functions, standard input/output, arrays, pointers, and structures in C++ programming. Prerequisite(s): COSC1309 OR COSC 1336 or CIS 3303 or concurrent enrollment or permission of department chair.

CIS 3331. Visual Basic Programming. 3 Credit Hours.
Study visual application development using Visual Basic and the native integrated development environment. Examine logic, working with forms, sequential and direct file access, and scope and visibility rules. Analyze problems within Visual Basic and develop programming solutions. Prerequisite(s): COSC1309 OR COSC 1336 or CIS 3303 or concurrent enrollment or permission of department chair.

CIS 3332. Java Programming. 3 Credit Hours.
Study applications development using Java. Examine identifiers and reserved words, objects and primitive data, program statements, arrays and vectors, exceptions and I/O streams, and graphical user interfaces. Analyze problems within Java and develop programming solutions. Prerequisite(s): COSC1309 OR COSC 1336 or CIS 3303 or concurrent enrollment or permission of department chair.

CIS 3340. Advanced C++ Programming. 3 Credit Hours.
Study C++ programming language. Examine advanced features of C++ such as classes, friends, abstraction, operator overloading, inheritance, polymorphism, templates, and object oriented programming techniques. Analyze problems within C++ and develop programming solutions. Prerequisite(s): CIS 3330 or permission of department chair.

CIS 3341. Advanced Visual Basic Programming. 3 Credit Hours.
Study Visual Basic programming techniques, including declaration and manipulation of arrays, accessing database files, and advanced data handling techniques. Analyze advanced problems in Visual Basic and develop programming solutions. Prerequisite(s): CIS 3331 or permission of department chair.

CIS 3342. Advanced Java Programming. 3 Credit Hours.
Study Java programming language. Examine advanced Java capabilities, including class features, error handling, security techniques, Java streams, JavaBeans, database connectivity, Java servlets, Java Server pages, and advanced object-oriented programming techniques. Analyze advanced Java problems and develop programming solutions. Prerequisite(s): CIS 3332 or permission of department chair.

CIS 3343. C# Programming for Windows and the Web. 3 Credit Hours.
Use C# programming language to create Windows applications in the Internet and intra-network environment. Explore object-oriented design, client-server interaction, event-driven programming, graphical user interfaces, distributed data, and distributed applications. Prerequisite(s): CIS 3330 or CIS 3331 or CIS 3332 or permission of the department chair.

CIS 3345. Topics in Personal Computer Software and Application. 3 Credit Hours.
Examine selected personal computer applications and software packages. Explore the operation and usefulness of commonly available personal computing software solutions. May be repeated once for credit as topics vary. Prerequisite(s): Varies with topic.

CIS 3346. Personal Computer Technology. 3 Credit Hours.
Examine the technology and hardware operations in microcomputers, their peripherals, and operating system software. Special emphasis on hardware configuration and selection, installation and test procedures, and routine maintenance.

CIS 3347. Data Communications and Infrastructure. 3 Credit Hours.
A study of telecommunications architecture, industry standards and communications protocols, the placement of networking devices and components, transmission media selection, logical and physical topologies, voice and data transmission, and structured cabling for local area networks (LANs) and wide area networks (WANs). Application exercises will include evaluating alternatives available in hardware, software, and transmission facilities; design integration, selection and implementation of communications and networking solutions. In addition, students will explore the current and future impact and directions of these technologies. Students will complete an architecture design project that will include required components and address services as specified in an industry specific Request for Proposal (RFP).

CIS 3348. Networking Architecture and Design. 3 Credit Hours.
Examine industry standards and communications protocols in networking. Learn placement of networking devices, transmission media selection, topologies, data transmission, and structured cabling for LANs and WANs. Develop network designs as specified in an industry specific Request for Proposal (RFP). Prepare and present a design proposal in response to an RFP and installation, configuration, testing and troubleshooting of WAN/LAN wiring interface technologies. Prerequisite(s): CIS 3347 or permission of department chair.

CIS 3351. Data Structures. 3 Credit Hours.
Study theory and applications of commonly used computer data structures, files, file organization and access methods, databases, and other storage and retrieval methods. Prerequisite(s): CIS 3340 or CIS 3341 or CIS 3342 or CIS 3343 or concurrent enrollment or permission of department chair.

CIS 3360. Ethics in Computing. 3 Credit Hours.
(WI) Examine personal and contemporary organizational ethical issues and challenges in the design, development and the use of computing technologies in a global environment. Special emphasis on the philosophical basis for computer ethics, reliability and safety of computer systems, protecting software and other intellectual property, computer crime and legal issues, and professional codes of ethics (AIS, ACM, IEEE etc.).

CIS 3361. Introduction to Computer Forensics. 3 Credit Hours.
The course focuses on clear and authoritative instructions about the field of computer forensics as it applies to the investigative process; from the collection of digital evidence to the presentation of Computer Forensic Examination findings in a court of law. Upon successful completion of the course, students will have a basic understanding of the computer forensic process, the scientific procedure involved in accounting, law enforcement, and computer sciences. Topics also include the science of computer forensics and how it relates to and is utilized within the judicial system of the United States.

CIS 3365. System Analysis and Design. 3 Credit Hours.
Examine 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. Analyze traditional and current methodologies in design, including computer aided analysis and design tools. Prerequisite(s): CIS 3330 or CIS 3331 or CIS 3332, or permission of department chair.
CIS 3387. Cooperative Education. 3 Credit Hours.
Develop and apply relevant CIS concepts in a work environment. Work in an approved professional CIS setting for approximately 300 hours before credit will be granted. To remain in the program, the student must remain in good standing with the university and employer. May be repeated once for credit. Prerequisite(s): Permission of co-op coordinator and department chair, and formal application to the program. Field experience fee $75.

CIS 3389. Special Topics in Computer Information Systems. 3 Credit Hours.
Examine selected issues, products, and technology current to computer information systems. This course may be repeated once for credit. Prerequisite(s): Varies with the topic or Permission of department chair.

CIS 4301. Database Theory and Practices. 3 Credit Hours.
Examine database concepts and structures, and understand file and data management principles underlying database construction. Learn fundamental types of database models, with emphasis on relational databases and major non-relational forms. Develop skills in analysis, design, development, and optimization of working database applications on a variety of problems. Prerequisite(s): 12 hours of CIS courses or permission of department chair.

CIS 4302. Advanced Business Analytics. 3 Credit Hours.
Follow the traditional descriptive/predictive/prescriptive framework to analyze large sets of data and explain the theory of formulating statistical models. Special emphasis on cluster analysis, Naïve Bayes, Optimization Modeling, simple and multiple linear regression, and ensemble modeling. Prerequisite(s): CIS 3302.

CIS 4303. Data Mining. 3 Credit Hours.
Discover basic concepts, tasks, methods, and techniques in data mining, and analyze data mining problems and their solutions. Develop an understanding of the data mining process, learn various techniques for data mining, and apply the techniques in solving problems using data mining tools and systems. Prerequisite(s): CIS 3302 or CIS 4301.

CIS 4307. Topics in Networking. 3 Credit Hours.
Explore selected topics in alternative or innovative network software packages, including network focused tools, utilities, and operating systems. Special emphasis on an exploration of the usefulness and operation of the topic of study. May be repeated once for credit as topics vary. Prerequisite(s): Varies with topic.

CIS 4308. Advanced Programming Language. 3 Credit Hours.
Develop programming proficiency in a modern programming language. May be repeated as topics vary. Prerequisite(s): Varies with topic or Permission of department chair.

CIS 4309. Decision Support Methods. 3 Credit Hours.
Use computer-based decision, analysis, planning, and presentation methods in the context of management strategy and problem-solving policy. Apply software tools such as databases, spreadsheets, statistical graphics, and presentation programs for extracting, organizing and presenting information in support of management decision making. Prerequisite(s): COSC 1301 or CIS 3300, or ACCT 2302 or ACCT 2402 or MGMT 3301 or FIN 3301 or MKTG 3314 or BUSI 3311, or permission of department chair.

CIS 4310. Artificial Intelligence. 3 Credit Hours.
A study of AI programming techniques and tools. Topics include Expert Systems, Neural Networks, Genetic Algorithms, Automatic Programming, heuristic search, and others. Prerequisite(s): CIS 3330 or CIS 3331 or CIS 3332 or permission of department chair.

CIS 4311. Android Application Development. 3 Credit Hours.
This course explores the design and development of mobile applications such as Android, including resources, user interfaces, services, alarms, maps and location based services. Prerequisite(s): CIS 3332 or Permission of Department Chair.

CIS 4335. UNIX Systems Administration. 3 Credit Hours.
Examine the underlying conceptual considerations of the UNIX operating system and its variants in mainframe, minicomputer, server and microcomputer application environments. Explore memory and process management, multi-programming and processing, interrupt structure, and parallel processing mechanisms and procedures. Special emphasis on practical application of configuration and security of selected UNIX systems. Prerequisite(s): CIS 3305 or 12 hours of CIS courses or permission of department chair.

CIS 4340. Algorithm Design and Analysis. 3 Credit Hours.
Examine computer algorithms, and learn to select appropriate algorithms for tasks within specific computing environments. Study searching and sorting algorithms for their importance in computing. Special emphasis on efficiency, readability, maintainability, advanced design and analysis techniques, advanced data structures, and graph algorithms. Prerequisite(s): CIS 3351 or concurrent enrollment or permission of department chair.

CIS 4341. Information Technology Security and Risk Management. 3 Credit Hours.
Examine the fundamental principles and topics of Information Technology Security and Risk Management at the organizational level. Learn critical security principles and best practices in order to plan, develop and perform security tasks. Special emphasis on hardware, software, processes, communications, applications, and policies and procedures with respect to organizational IT Security and Risk Management. Prerequisite(s): 12 hours of CIS Courses or Permission of the department chair.

CIS 4342. Computer Security Principles and Practices. 3 Credit Hours.
Explore current principles, theories, and concepts behind computer security. Examine basic methods and practices of security as it affects modern business operations. Special emphasis on cryptography, authentication, access control, database security, malware, intrusion detection, firewalls, security policy and management, software and operating system security, auditing and legal aspects of cyber security. Prerequisite(s): 12 hours of CIS courses or permission of department chair.

CIS 4343. Advanced Systems and Analysis. 3 Credit Hours.
Examine data and process decomposition, and modeling in advanced systems analysis. Study the CASE tools which support models and interaction analysis of process and data. Explore the enterprise-wide view of system analysis, and understand the theory behind and the generation of normalized relational database tables. Prerequisite(s): CIS 3365 and CIS 4301 or permission of department chair.
CIS 4345. Network and Systems Security. 3 Credit 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 and networks. Areas covered include information and message security, database and file integrity, physical security, security management, security risk analysis, and encryption/cryptography. Will include practical laboratories in the analysis, and configuration of networking security protocols and tools. Prerequisites: CIS 3347 or approval of Department Chair. Lab fees: $95.

CIS 4346. Applied Security. 3 Credit Hours.
This course will validate and develop in-depth hands on knowledge about the operation and defense from malicious attacks. It builds on previous course work to understand rapid recovery and defense of systems from attack. Students develop knowledge about system vulnerabilities and the process of penetration of systems as a way to evaluate the security of systems. Specific topics include social engineering, malware and malicious software usage and identification, network security tool familiarization and system hardening. Prerequisite(s): CIS 3347 and (CIS 4341 or CIS 4342) or approval of department chair. Lab Fee: $95.

CIS 4348. Security Trends and Malware Analysis. 3 Credit Hours.
This course analyzes and investigates security threats and ethical hacking methods. It will introduce students to modern malware analysis techniques through a detailed examination of malware, virus, and malicious code operation by examining case studies and hands-on interactive analysis of real world samples. The course will also examine in detail current trends in the threat environment and the most current attack exploits. Student will use a variety of methods to investigate current security threats and their mitigation. Topics include malware morphology, disassembly of malware, ethical hacking methods on systems including penetration, and trends in the threat-scape. Prerequisite(s): CIS 4345 or CIS 4346 or approval of department chair. Lab fees $95.

CIS 4350. Management Information Systems. 3 Credit Hours.
Study management issues related to business information systems designed to meet the informational needs of the various business subsystems. Special emphasis on the concepts of systems development, security, privacy and ethics associated with information systems.

CIS 4351. IS Project Management. 3 Credit Hours.
This course studies the processes, methods, techniques and tools that organizations use to manage their information systems projects. The course covers a systematic methodology for initiating, planning, executing, controlling, and closing projects. This course assumes that project management in the modern organization is a complex team based activity, where various types of technologies (including project management software as well as software to support group collaboration) are an inherent part of the project management process. This course also acknowledges that project management involves both the use of resources from within the firm, as well as contracted from outside the organization. Prerequisite: Senior standing or approval of department chair.

CIS 4352. Structured Query Language. 3 Credit Hours.
Study relational database schema, formulating queries and sub-queries of varying complexity, embedding query statements in a “host” language, and defining and querying data views. Prerequisite(s): CIS 4301 or permission of department chair.

CIS 4360. Strategic Information Systems. 3 Credit Hours.
(WI) This course will explore necessary management actions, which will ensure that information is available, correct, manipulatable, protected, and archived in proper forms to allow for a strategic use of information systems in the enterprise. Throughout this course we will review a set of conceptual frameworks of IT management, and by developing a critical view of two levels of IT management – strategic and tactical. We will address the value/importance of IT from strategic and tactical perspectives, and the IT management challenges of managing people, processes and technology. Prerequisite(s): Senior Standing or CIS 4350 or Permission of Department Chair.

CIS 4375. Professional Senior Seminar. 3 Credit Hours.
Participate in professional organizations, current events, research and presentations, job market analysis, interviewing, and resume preparation, in order to prepare for the professional certification exam. Prerequisite(s): 24 hours of CIS courses.

CIS 4376. Network Administration. 3 Credit Hours.
Study communications architectures, protocols, and interfaces as related to network operating systems. Examine communications networking techniques, such as DHCP and DNS server configuration and internet working. Examine industry standards in networking. Special emphasis on installation, configuration, client handling, basic security, and troubleshooting of a network operating system. Use a modern network operating system in order to gain experience in configuration and administration of a network. Lab fee $95. Prerequisite(s): CIS 3347 or permission of department chair.

CIS 4378. Comprehensive Networking. 3 Credit Hours.
A course requiring the student to learn details of various networking protocols and engage in analyzing and designing various computer network applications. Specifically, the course will focus on the OSI and TCP/IP networking protocols, including subnetting of IP address, local area networking (LAN), wide area networking (WAN) and network analysis. This course includes hands-on exercises on various networking layer messages on live web traffic and explore them to understand overall networking process. Lab fees: $95. Prerequisite(s): CIS 3347 or permission of department chair.

CIS 4379. Software Engineering for E-Business. 3 Credit Hours.
(WI) 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. Students study a software life-cycle model, fundamental software engineering principles, and documentation standards in detail. An E-Business team project is required, which emphasizes the production of high quality software for medium and larger scale projects. Prerequisite(s): (CIS 3340 or CIS 3341 or CIS 3342) and senior standing.

CIS 4380. Software Engineering. 3 Credit Hours.
Examine the production of high quality software for medium and larger scale projects. Explore theoretical software engineering research as the basis for a practical approach to developing quality software. Special emphasis on the software life-cycle model, fundamental software engineering principles, and documentation standards in detail. Prerequisite(s): CIS 3340 or CIS 3341 or CIS 3342 or CIS 3343 and senior standing.
CIS 4384. Internship in Computer Information Systems. 3 Credit Hours.
Gain practical work experience as a programmer/programmer analyst. Apply the principles, concepts, and skills learned during the first three years of collegiate training to the field of computer information systems. May be repeated for credit. Prerequisite(s): Permission of internship coordinator or department chair. Field experience fee $75.

CIS 4388. Computer Information Systems Problems. 1-3 Credit Hours.
Explore selected topics in business on technical computer applications, practicum, field project, or other suitable computer studies. Prerequisite(s): Varies with topic or Permission of department chair.

CIS 5090. Computer Information Systems Comprehensive Examination. 0 Credit Hours.
Prepare for and take the CIS comprehensive exam. Students should take this exam in their last semester, their second to last semester, or when all the core classes have been taken. Students taking the thesis option do not need to take this exam.

CIS 5302. Object Oriented Programming. 3 Credit Hours.
This course covers the concepts of object-oriented approach to software design and development. It includes a detailed discussion of programming concepts starting with the fundamentals of data types, control structures, arrays, classes and proceeding to advanced topics such as inheritance and polymorphism, creating user interfaces, and exceptions. Upon completion of this course the students will be able to design and implement applications.

CIS 5304. Data Communications for Managers. 3 Credit Hours.
Examine 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. Upon completion of this course, the students will be able to evaluate, select, and implement different data network options.

CIS 5307. Advanced Systems Analysis and Design. 3 Credit Hours.
Examine system analysis and design processes. Students will be introduced to comparative development methodologies and modeling tools including project management and cost-benefit analysis; information systems planning and project identification and selection; requirements collection and structuring; process modeling; conceptual and logical data modeling; database design and implementation; design of the human-computer interface; system implementation; system maintenance and change management.

CIS 5311. Management Information Systems. 3 Credit Hours.
Study the management and use of information and technology as a resource to create competitive organizations, manage global operations, provide useful products and quality services. Examine intellectual property, privacy, organizational and societal impact, legal issues, ethics, security issues, decision making, strategic information systems, and organizational support systems.

CIS 5312. Technology Support Management Operations. 3 Credit Hours.
Study issues of organizing and staffing a technical support help desk. Explore the numerous management techniques and operational concepts that businesses and governmental organizations use to manage successful technical support activities. Survey the wide array of commercially available technical support software, and work with the public to deliver technical support in an operational environment.

CIS 5316. Advanced Database Management. 3 Credit Hours.
Examine the methodologies of database management including data models, database design, normalization, SQL/ PLSQL, NoSQL, performance and reliability, distributed database, data dictionaries, data integrity, security, and privacy.

CIS 5318. Quantitative Concepts. 3 Credit Hours.
Examine and apply measurement techniques to information technology related problems. Use a statistical program to analyze data, and perform analyses of programs and selected algorithms.

CIS 5319. Business Intelligence Systems. 3 Credit Hours.
Examine the fundamentals of Business Intelligence including concepts, techniques and applications. Special emphasis on Decision Support Systems and other collaborative systems, Data Management, Data Mining, Data Visualization, Expert Systems and Intelligent Systems.

CIS 5320. Information Systems Seminar. 3 Credit Hours.
Explore selected topics in information systems. Topics will vary. May be repeated once for credit as topics vary.

CIS 5325. Unified Modeling Language. 3 Credit Hours.
This course covers Systems Development Life Cycle using the Unified Modeling Language (UML) in an object-oriented software system environment. Topics include modeling the elements, structure, and behaviors of object-oriented software systems using UML. Upon completion of this course, students will be able to use UML to identify objects and classes, capture requirements and define use cases, to extend and enhance visual models, and model the details of object behavior with activity and state-chart diagrams.

CIS 5344. Scripting Languages for Web Design. 3 Credit Hours.
This course is a study of Web Scripting languages and will cover many aspects of creating dynamic Web Sites using server-side and client-side scripting. It will also delve into interactions between Web Sites and a database.

CIS 5345. Extensible Markup Language. 3 Credit Hours.
Study well-formed XML and validated XML documents and the language facilities for working with hierarchical data. Describe and transform XML data to an external presentation using real world problems.

CIS 5349. Topics in Programming. 3 Credit Hours.
Develop programming proficiency in a modern programming language. Undertake multiple programming assignments to achieve necessary knowledge and skills. May be repeated once for credit as topics vary. Prerequisite(s): Varies with Topic.

CIS 5351. Information Technology Project Management. 3 Credit Hours.
Study the concepts and practices of project management and its importance to improving the success of information technology projects. Utilize project management concepts and techniques within group projects, as a project manager or active team member. Topics include techniques for planning, organizing, scheduling, and controlling information systems projects.

CIS 5353. Big Data Analytics and Management. 3 Credit Hours.
Study fundamental concepts and principles of Big Data Analytics and its role in supporting/enhancing organizational decision making and predictions. Special emphasis on Big Data, trends, challenges and applications, analytic methods, tools, technologies, infrastructure and strategies for Big Data Management, data Privacy and Ethics. Prerequisite(s): CIS 5311 or permission of department chair.
CIS 5354. Advanced Methods in Big Data Analytics. 3 Credit Hours.
Study advanced concepts and principles of Big Data Analytics and its role in supporting/enhancing organizational decision making and predictions. Special emphasis on NoSQL Databases, Hadoop Ecosystem, MapReduce, Pig, Hive, Natural Language Processing, Social Network Analysis, and Data Visualization. Prerequisite(s): CIS 5353, Java Programming or permission of department chair.

CIS 5365. Web Development. 3 Credit Hours.
Examine theory and application of the multimedia application development process. Develop the web-based authoring and scripting tools, to use in the creation of various types of web-based projects. Special emphasis on the planning, design, projection, and evaluation of interactive web-based projects for delivery through a variety of media.

CIS 5370. Foundations of Information Security. 3 Credit Hours.

CIS 5376. Network Administration and Design. 3 Credit Hours.
This course explores network design, installation planning, and preparation. Topics include installing network operating system; establishing network security and services; exploring network administration, network utilities, maintenance techniques; monitoring performance; troubleshooting and configuring the network.

CIS 5380. E-Business Application Development. 3 Credit Hours.
This course provides an in-depth knowledge of systematic approach to analyze digital markets. Upon completion of this course, students will be able to design and implement an e-business project integrating database, and scripting languages. Prerequisite: CIS 5316 or perm of Chair.

CIS 5381. Research Project with Laboratory. 3 Credit Hours.
Engage in independent study in selected topics in Information Systems. May be repeated for credit once when topics change. Prerequisite(s): Varies with topic.

CIS 5382. Research Methods in Computer Information Systems. 3 Credit Hours.
This course provides an overview of research problems and techniques in information systems. Upon completion of this course, students will be able to formulate a research question; conduct a literature survey; select appropriate research methods to answer their research questions; collect and analyze data.

CIS 5384. Computer Information Systems Internship. 3 Credit Hours.
Engage in a supervised professional experience in an information technology-related position with a public or private organization. May be repeated for a total of 6 hours credit. Prerequisite(s): 6 semester hours of CIS courses or equivalent and permission of internship coordinator or department chair. Field experience fee $75.

CIS 5388. Computer Information Systems Problems. 1-3 Credit Hours.
Study selected topics in CIS 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(s): Varies with topic.

CIS 5389. Special Topics in Computer Information Systems. 3 Credit Hours.
Study selected current topics in computer information systems. May be repeated once for credit as topics vary. Prerequisite(s): Varies with topic.

CIS 5398. Computer Information Systems Thesis. 1-6 Credit Hours.
Prepare and write the information systems thesis. Scheduled when the student is ready to begin the thesis. No credit until the thesis is accepted. Prerequisite(s): CIS 5382, 18-hours.

Economics Courses
ECON 1301. Introduction to Economics. 3 Credit Hours.
(080) A survey of microeconomic and macroeconomic principles for non-business majors. 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.
(080) An analysis of the economy as a whole including measurement and determination of Aggregate Demand and Aggregate Supply, national income, inflation, and unemployment. Other topics include international trade, economic growth, business cycles, and fiscal policy and monetary policy.

ECON 2302. Principles of Microeconomics. 3 Credit Hours.
(080) Analysis of the behavior of individual economic agents, including consumer behavior and demand, producer behavior and supply, price and output decisions by firms under various market structures, factor markets, market failures, and international trade.

ECON 3301. Intermediate Macroeconomics. 3 Credit Hours.
Study of the aggregate economy introduced in Economics 2301 with emphasis on theory. Learn the Classical and Keynesian systems, general equilibrium theories, economic growth, and public policy in a global setting. Prerequisite(s): ECON 2301.

ECON 3302. Intermediate Microeconomics. 3 Credit Hours.
Explore advanced studies of microeconomic theory. Special emphasis on consumer behavior, production and cost theory, market structure, and factor markets. Prerequisite(s): ECON 2302.

ECON 3303. Money and Banking. 3 Credit Hours.
Study 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. Credit for both FIN 3303 and ECON 3303 will not be awarded. Prerequisite(s): ECON 2301.

ECON 3304. Environmental Economics. 3 Credit Hours.
Study 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(s): 3 hours ECON.

ECON 3305. Economics in Financial Markets. 3 Credit Hours.
Study the aggregate financial system and capital markets and the impact these have on financial intermediaries. Particular emphasis on flow of funds analysis, interest rate theory, role of financial intermediaries, and management of financial assets. Credit for both FIN 3304 and ECON 3305 will not be awarded. Prerequisite(s): FIN 3301 and ECON 3303.
ECON 3306. Political Economy. 3 Credit Hours.
Study the historical, philosophical, and theoretical relationships between the state and the economy. Credit for both POLI 3306 and ECON 3306 will not be awarded. Prerequisite(s): 3 hours of ECON and 6 hours of POLI or permission of instructor.

ECON 4301. International Economics. 3 Credit Hours.
Analyze 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. Prerequisite(s): 3 hours ECON.

ECON 4302. Economic Development of the US. 3 Credit Hours.
Survey of the economic development of the United States from colonial times to the present. Credit for both ECON 4302 and HIST 4302 will not be awarded. Prerequisite(s): ECON 1301 or ECON 2301 and 6 hours HIST.

ECON 4310. Managerial Economics. 3 Credit Hours.
Study economic theory and methodology in business and administrative decision-making. Learn the tools of economic analysis and their use in formulating business policies. Particular emphasis on profits, production and cost functions, demand theory, competitive pricing policies, and business criteria for investment output and marketing decisions. Credit for both FIN 4310 and ECON 4310 will not be awarded. Prerequisite(s): FIN 3301.

ECON 4321. Development of Rural Areas. 3 Credit Hours.
Study the fundamental causes of economic decline in rural areas. Learn application of economic principles and theory to problems of rural areas. Evaluate current methods, and public programs for economic development, with special emphasis on applications of analytical methods to development problems. Prerequisite(s): ECON 2302.

ECON 4365. Intermediate Economics. 3 Credit Hours.
Discuss the American free enterprise system, the nation's economy and its strengths and weaknesses. Examine professional journals, articles, books and reports by the government and private sources, in order to coordinate and apply the analytical knowledge acquired during the period of study. Prerequisite(s): Macroeconomics and microeconomics, college algebra or MATH 3309 or permission of instructor.

ECON 4388. Economic Problems. 1-3 Credit Hours.
Study of selected problems in economics. Engage in independent research, reading and discussions under the personal direction of the instructor, topics may vary according to student need. Entry into this course will be arranged with the Economics counselor.

ECON 5308. Managerial Economics. 3 Credit Hours.
Study economic theory and methodology to business and administrative decision-making. Utilize the tools of economic analysis to demonstrate and formulate business policies. Particular emphasis on profits, production and cost functions, demand theory, competitive pricing policies, and business criteria for investment output and marketing decisions. Credit for both FIN 5308 and ECON 5308 will not be awarded.

ECON 5359. Economic Applications Issues. 3 Credit Hours.
Examine 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.

ECON 5364. Global Commerce Seminar. 3 Credit Hours.
Focus on global competitive challenges facing business management teams. Evaluate how companies have strategically entered and developed international markets and managed global diversification. Learn to analyze international market potential, assess business risks and become familiar with institutions and national policies directing international trade.

ECON 5388. Economic Problems. 1-3 Credit Hours.
Study selected problems in economics. Engage in independent research, reading and discussions under the personal direction of the instructor, topics may vary according to student need.

Finance Courses

FIN 3300. Introduction to Financial Planning. 3 Credit Hours.
Analyze personal financial decisions, including basic financial planning, tax issues, managing savings and deposit accounts, buying real assets, the use of credit, insurance management investments and saving for retirement.

FIN 3301. Financial Management I. 3 Credit Hours.
Analyze financial decision-making at the corporate level with emphasis on the maximization of stockholder wealth. Learn financial statement analysis, the valuation of stocks and bonds, cost of capital, capital budgeting, dividend policy, leverage and capital structure, methods of firm valuation, working capital management, mergers and acquisitions, and bankruptcy. Prerequisite(s): ACCT 2302 or ACCT 2402 and ECON 2301.

FIN 3302. Financial Intermediaries. 3 Credit Hours.
Study the internal operations of financial intermediaries with major emphasis on organization, source and allocation of funds, supervision, and regulation. Prerequisite(s): FIN 3301 and ECON 3303.

FIN 3303. Money and Banking. 3 Credit Hours.
Study 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. Credit for both FIN 3303 and ECON 3303 will not be awarded. Prerequisite(s): FIN 3301.

FIN 3304. Economics in Financial Markets. 3 Credit Hours.
Study the aggregate financial system and capital markets and the impact these have on financial intermediaries. Special emphasis on flow of funds analysis, interest rate theory, role of financial intermediaries, and management of financial assets. Credit for both FIN 3304 and ECON 3305 will not be awarded. Prerequisite(s): FIN 3301.

FIN 3309. Global Financial History. 3 Credit Hours.
Study different financial crises in history. Explore global and long-term overviews of socio-economic factors that influence the development of financial instruments, institutions, markets and entrepreneurs.
FIN 3387. Cooperative Education. 1-3 Credit Hours.
Integrate academic study with work experience that is relevant to a major or minor. Two-semester minimum requirement 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. Cooperative Education advisor will supervise the student's and assign the final grades. Students may participate in the Cooperative Education but will earn only a maximum of 6 hours credit toward a degree. Prerequisite(s): 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 permission of department chair. Field experience fee $75.

FIN 4300. Advanced Financial Management. 3 Credit Hours.
Analyze value-based management techniques with emphasis on the factors affecting the corporation's intent to maximize shareholder wealth. Explore financial statement analysis, cash flow analysis, economic and market value added securities valuation, the cost of capital, capital budgeting, capital structure, divided policy, the use of leverage, working capital management, and corporate governance. Prerequisite(s): FIN 3301.

FIN 4301. International Financial Management. 3 Credit Hours.
Analyze the financing of investment abroad, the management of assets in differing financial environments, issues and questions which concern financial management of international corporations. Explore 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(s): FIN 3301 or permission of department chair.

FIN 4302. Real Estate Finance. 3 Credit Hours.
Study 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. Prerequisite(s): Permission of department chair.

FIN 4303. Case Studies in Finance. 3 Credit Hours.
(WI) Utilize fundamental concepts learned in previous finance, accounting, and economics courses to analyze real-world finance problems. In structured and unstructured cases, student teams analyze problems and recommend solutions. Cases drawn from areas such as corporate finance, investments, international finance, and personal finance. Prerequisite(s): FIN 3301.

FIN 4304. Investments. 3 Credit Hours.
Study the development of investment policy, the character of investment risk, comparison of investment media, description and analysis of security markets and their operations. Prerequisite(s): FIN 3301. BUSI 3311 or equivalent.

FIN 4305. Federal Tax Accounting I. 3 Credit Hours.
Explore the present income tax law and regulations, income tax legislation, treasury and court decisions, departmental ruling, income tax problems and returns, social security and self-employment taxes. Prerequisite(s): ACCT 2302 or ACCT 2402 and Junior classification. Credit for both ACCT 4305 and FIN 4305 will not be awarded.

FIN 4306. Federal Tax Accounting II. 3 Credit Hours.
Study current income tax law and tax accounting procedures. Preparation of income tax returns of partnerships and corporations. Prerequisite(s): FIN 4305 or permission of School Director. Credit for both ACCT 4306 and FIN 4306 will not be awarded.

FIN 4307. Analysis of Fin Statements. 3 Credit Hours.
Analyze corporate financial statements. Learn how information can be analyzed and processed to aid creditors, investors, managers, consultants, auditors, directors, regulators and employees in their business decisions. Prerequisite(s): FIN 3301.

FIN 4308. Risk Management. 3 Credit Hours.
Analyze processing, investing, and evaluation of risk management. Examine risk management process and its application in commercial, personal, and public risk. Explore various types of insurance products, the process by which insurance is sold, and how individuals and organizations manage risk via insurance products. Prerequisite(s): FIN 3301 or permission of department chair.

FIN 4310. Managerial Economics. 3 Credit Hours.
Study economic theory and methodology in business and administrative decision-making. Explore economic analysis and It's use in formulating business policies. Analyze concepts of profits, production and cost functions, demand theory, competitive pricing policies, and business criteria for investment output and marketing decisions. Credit for both FIN 4310 and ECON 4310 will not be awarded. Prerequisite(s): FIN 3301.

FIN 4384. Financial Internship. 1-6 Credit Hours.
Participate in a finance related position for work experience with a public or private organizations that is preapproved and supervised. May be repeated for a total of 6 credit hours. Prerequisite(s): FIN 3301 and permission of department chair.

FIN 4388. Financial Problems. 1-3 Credit Hours.
Study of selected problems in finance. Engage in independent research, reading and discussions under the personal direction of the instructor, topics may vary according to student need. May be repeated with permission department chair. Prerequisite(s): Permission of department chair.

FIN 4389. Selected Topics in Finance. 3 Credit Hours.
Examine current issues and topics in finance. Study readings from current finance publications and other related periodicals. Activities may include directed study, participation in professional organizations, research and presentations, job market analysis, preparation and sitting for professional certification exams. May be repeatable for credit if the topic varies. Prerequisite(s): 12 semester hours of FIN and permission of department chair.

FIN 5301. International Fin Strategy. 3 Credit Hours.
Examine 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 vestment opportunities.

FIN 5303. Bank Management. 3 Credit Hours.
Study bank management and bank regulation. Examine the operations and management policies of depository institutions, the conditions that have led to bank regulation and deregulation, the risk structure of credit for commercial and consumer clients, and capital management issues for a bank.
FIN 5304. Investments. 3 Credit Hours.
Explore 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(s): FIN 3301 or equivalent.

FIN 5305. Corporate Finance Case Studies. 3 Credit Hours.
Incorporate case studies and financial analysis to make financial management decisions. Analyze selected cases and prepare solutions. Discuss solutions in class and prepare proposals. Students will be required to use prior knowledge, current research, and analytical ability in preparing their proposals. Prerequisite(s): Graduate standing.

FIN 5306. Markets and Institutions. 3 Credit Hours.
Explore the operation, mechanics, and structure of the financial system within the United States, emphasizing its institutions, markets, instruments, and monetary policy of the Federal Reserve and its impact upon financial institutions.

FIN 5307. Financial Management. 3 Credit Hours.
Study financial decision making in the modern corporation. Explore capital budgeting, capital structure, corporate sources of funding, dividend policy, financial risk management, standard theories of risk and return, and valuation of assets. Prerequisite(s): FIN 3301 or equivalent.

FIN 5308. Managerial Economics. 3 Credit Hours.
Analyze economic theory and methodology in business and administrative decision-making. Study the tools of economic analysis and their use in formulating business policies. Explore concepts of profits, production and cost functions, demand theory, competitive pricing policies, and business criteria for investment output and marketing decisions. Credit for both FIN 5308 and ECON 5308 will not be awarded.

FIN 5309. Global History of Finance. 3 Credit Hours.
Study the history of money to develop a unified framework for understanding the economic events, public policy, and financial innovation that characterize different geographical settings over time.

FIN 5310. Risk Management. 3 Credit Hours.
Explore the theory and practice of private insurance and its economic and social significance. Analyze life, health, automotive, homeowners, and liability insurance. Study various forms of risk management, characteristics of insurance contracts, government regulatory characteristics, and institutional structures are studied. Prerequisite(s): none.

FIN 5360. Finance Theory. 3 Credit Hours.
Study selected theoretical models used in finance. Explore the seminal theories that make up modern finance and form the basis for current research. Prerequisite(s): FIN 5307.

FIN 5370. Consumer Finance Seminar. 3 Credit Hours.
Explore consumer and business finance topics. Analyze debt management, initial public offering of a new business, Internet based finance and regulatory aspects, and management of compensation. Credit for both FIN 5370 and HRM 5326 will not be awarded.

FIN 5388. Financial Problems. 1-3 Credit 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(s): Permission of instructor.

FIN 5389. Selected Topics in Finance. 3 Credit Hours.
Examine selected topics in finance. Special emphasis on investments, corporate financial management, and financial markets and institutions. This course may be repeated for credit as the topic changes. Prerequisite(s): Graduate standing and FIN 3301 or FIN 5307 or permission of instructor.

Human Resource Management Courses

HRM 5090. Human Resources Comprehensive Examination. 0 Credit Hours.
Study and take the human resources examination for non-thesis students. Register for the comprehensive examination during final semester of graduate coursework, or upon permission of advisor. All comprehensive examinations will be written, but an oral component may also be required. A maximum of three attempts will be allowed. Thesis students do not take this examination.

HRM 5302. Human Resource Management. 3 Credit 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. Examines the responsibilities of organizational leadership for incorporating human resource issues in strategic planning and initiatives. Emphasis is placed in current legal considerations, issues and research. Prerequisite(s): Management Leveling.

HRM 5303. Managing Human Resource Development. 3 Credit Hours.
Study of talent development program design and management, dominate learning process models and theories, and the changing nature of work. Identify strategic considerations of an increasingly global and diverse workforce on learning program design, development and implementation. Investigate recent trends in instructional design and learning technologies. Prerequisite: Management Leveling.

HRM 5305. Human Resource Law. 3 Credit Hours.
Examine legal issues and regulatory processes related to employment relationships, equal employment opportunity and affirmative action, privacy, employment testing and staffing, compensation and benefits, employee/labor relations, and occupational health and safety.

HRM 5307. Human Resource Consulting and Job Analysis. 3 Credit Hours.
Study theories, strategies, operational issues and research related to conducting job analyses. Learn job description and specification development. Emphasis is placed on using appropriate techniques to acquire measure, assess and use information gathered in the work place. Explore and develop consulting skills as used in the HR field. Field projects are used extensively. Prerequisite(s): HRM 5302 or the permission of instructor.

HRM 5310. The Adult Learning Environment. 3 Credit Hours.
Examine learning patterns, interests and participation among adults, with implications for training and development programs. Particular attention is given to the joint responsibility for learning between trainer and adult participants.

HRM 5314. Workforce Planning and Employment. 3 Credit Hours.
Study of the legal, ethical and organizational considerations related to the process of planning, sourcing, recruiting, assessing, selecting, placing, and retaining a qualified workforce. Emphasis is placed on decision making and strategic considerations in forecasting, measurement and evaluation, equal employment opportunity, employer brand management, and talent management. Prerequisites: Management Leveling.
HRM 5315. Employee Benefits and Services. 3 Credit Hours.
Examine legal, social and technical issues and research surrounding current trends in employee benefit programs. Analyze group health, disability and life insurance, retirement planning, time-off (leave) and wellness programs. Emphasis is placed on program administration, implementation and evaluation. Prerequisite(s): HRM 5302 or permission of instructor.

HRM 5316. Compensation Management. 3 Credit Hours.
Explore how a variety of factors such as labor market, organization, and job characteristics affect (or are correlated with) the levels and methods of pay. Examine recent pay related issues such as pay inequality and gender pay gap. Emphasis is placed on the development of sound compensation programs which consider current trends, legal implications and social requirements. Prerequisites: Management Leveling.

HRM 5324. Employment and Labor Relations. 3 Credit Hours.
Explore 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. Examine labor law and legal issues in labor relations, including the National Labor Relations Act and the functions of the NLRB. Negotiation skills are developed in mock labor contract negotiations. Prerequisite(s): HRM 5302 and HRM 5301 or HRM 5305 or concurrent enrollment.

HRM 5326. Human Resource Management Seminar. 3 Credit Hours.
Study selected topics in human resource management. Engage in independent research, reading, and discussions under direction of professor. Topics may vary according to student need. May be repeated once for credit when topics vary.

HRM 5330. Global Human Resource Management Practices. 3 Credit Hours.
Study basic international business concepts, cultural literacy, and discipline specific content applied to practical experiences and activities in a visited foreign country. 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. Student may complete a maximum of six hours of COBA sponsored study abroad toward degree completion. Prerequisite(s): Admission into a COBA graduate program and permission of instructor. Field experiences fee $75.

HRM 5334. Professional Issues in Human Resource. 3 Credit Hours.
Examine contemporary professional issues in human resource management. Emphasis on current issues, ethical decision-making processes, work place investigations, and continued professional development. Successful completion of a comprehensive competency examination covering the principal areas within the human resource management functions is required. Prerequisite(s): BUSI 5310, HRM 5302, HRM 5303, HRM 5305, HRM 5314 and HRM 5316, or concurrent enrollment in each.

HRM 5384. Human Resource Management Internship. 3 Credit Hours.
Gain professional 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 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(s): Completion of 12 graduate semester hours in Human Resource Management, preregistration coordination and permission of course instructor. Field experiences fee $75.

HRM 5388. Human Resource Management Problems. 3 Credit Hours.
Study selected problems in human resource management, and conduct research within a specific area of interest. Engage in independent research, reading, and discussions as directed by the responsible professor. Topics may vary according to student need. Prerequisite(s): Permission of department chair.

Management Courses

MGMT 3301. Principles of Management. 3 Credit Hours.
Study the basic managerial functions of planning, organizing, staffing, directing, and controlling resources to accomplish organizational goals. Special emphasis on the systems concept of management and role of the manager in each level of the organization.

MGMT 3302. Personnel and Human Resource Management. 3 Credit Hours.
Study 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 3303. Supervisory Management. 3 Credit Hours.
Investigate the role, function, and responsibilities of the supervisor in modern organizations through study of sociological and psychological theories in human relations. Emphasis is on development of supervisory skills in communications, motivation, discipline, morale, and grievances as they arise in superior-subordinate relationships. Prerequisite(s): MGMT 3301 or permission of department chair.

MGMT 3310. Entrepreneurship I. 3 Credit Hours.
Learn how to identify and evaluate opportunities that may become the foundation for a new business ventures. Learn to develop a new business venture using the business model canvas. Assess the value of a concept and explore opportunity recognition, innovation and creativity, the legal structure of business, and types of entrepreneurial ventures. Prior knowledge in basic business fundamentals and good writing skills are preferred, but not required.

MGMT 3350. Organizational Behavior. 3 Credit Hours.
(WI) Analyze behavior of people at work in all types of organizations. Learn 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. Prerequisite(s): MGMT 3301 and BUSI 3301.

MGMT 4302. Productive Relationships. 3 Credit Hours.
Examine the practicals and theories related to dealing with human behavior. Emphasis on identifying and classifying behavior in order to better understand behavior and to develop strategies for effectively managing interpersonal relationships. A materials fee of $45 is required for needed course materials. Prerequisite(s): MGMT 3301 and BUSI 3301.

MGMT 4303. Managing Compensation. 3 Credit Hours.
Understand the various factors that affect the two important compensation decisions: How to (pay method) and how much (pay level) an organization should pay its employees. Emphasis is placed on the understanding of basic concepts, theories, current trends, and legal and social requirements related to the issue of compensation. Prerequisites: BUSI 3301 and MGMT 3302.
MGMT 4304. Recruitment and Selection of Human Resources. 3 Credit Hours.
Study recruitment and selection of human resources for organizations. Examine optimal utilization of human resources within organizations, and the use of tests and other techniques in human resource management. Prerequisite(s): MGMT 3302 and BUSI 3301.

MGMT 4305. Human Resource Development. 3 Credit Hours.
Learn practical and theoretical approaches to training and development of employees in an organization. Study role and scope of training and development functions, philosophies, strategies, needs analysis, development of program content, and evaluation Prerequisite(s): MGMT 3302 and BUSI 3301.

MGMT 4306. Employer and Labor Relations. 3 Credit Hours.
Study collective bargaining, labor market fundamentals, unionism, and related issues of labor economics. Prerequisite(s): MGMT 3301.

MGMT 4310. Entrepreneurship II. 3 Credit Hours.
Develop skills required to manage and grow a new venture past the start-up. Apply general business concepts to the challenges facing entrepreneurs. Draw on a broad range of business disciplines including management, marketing, finance, and accounting to develop a business plan. As such, background knowledge in these areas, as well as good writing skills, is strongly preferred, but not required. Prerequisite(s): MGMT 3301 or permission of department chair.

MGMT 4321. Production and Operations Management. 3 Credit Hours.
Study industrial organization, scientific management, planning and control, building locations and layouts, wage rates, corporation relationships, and research. Prerequisite(s): MGMT 3301 and BUSI 3311.

MGMT 4322. Management Science. 3 Credit Hours.
Learn quantitative techniques of decision-making with an emphasis on managerial needs. Study discipline of continuous improvement in managerial decision-making. Analyze problem definition, data gathering and analysis, process improvement, improvement control, and be able to make recommendations to improve business results. Prerequisite(s): MGMT 3301 and BUSI 3311.

MGMT 4325. Leadership Theory and Practice. 3 Credit Hours.
Study leadership theories and issues with practical application of newer leadership models in contemporary organizations. Explore facets of both leadership and followership, along with the impact of the particular organizational setting and situation. Explore situation analysis through active reflection, analysis of case studies, simulations, and popular business press treatment of leadership situations. Prerequisite(s): MGMT 3301 and MGMT 3302.

MGMT 4340. Management Seminar. 3 Credit Hours.
Study current issues in management. Analyze readings from current management publications and other related periodicals. May be repeated for credit when topics vary. Prerequisite(s): 15 hours of MGMT or permission of department chair.

MGMT 4354. International Management. 3 Credit Hours.
Study the international dimensions of the marketplace and environment related to management. Examine the role of culture within international strategic management, organizational behavior and human resource management. Prerequisite(s): MGMT 3301, BUSI 3301 and BUSI 3344.

MGMT 4356. Global Management Practices. 3 Credit Hours.
Study basic international business concepts, cultural literacy, and discipline specific content applied to practical experiences and activities in a visited foreign country. A study abroad at the student's expense is required. Students must complete a maximum of six hours of COBA sponsored study abroad toward degree completion. Prerequisite(s): Junior or senior standing. BUSI 4354, MGMT 4356, or MKTG 4356 may not be taken concurrently. Field assignment fee of $75.

MGMT 4360. Emergency Management. 3 Credit Hours.
Learn theories, principles and approaches to emergency management. Study the Philosophy of Comprehensive Emergency Management (CEM) with its four phases of preparedness, mitigation, response, and recovery. Analyze past disasters presented along with their attendant policy formations leading to the FEMA all hazards approach.

MGMT 4370. Introduction to Project Management. 3 Credit Hours.
This course provides a comprehensive overview of project management. The culture, principles, and basic techniques of project management are addressed using the project life-cycle as the primary organizational guideline. The project management functions of planning, organizing, motivating and controlling with an emphasis on the application to business and technology are explained. Basic tools of project management such as work breakdown structure, scheduling, earned value analysis, and risk management are explained and demonstrated. Prerequisites: BUSI 3301, BUSI 3311, MGMT 3301; Materials Fee: $35 for a simulation experience.

MGMT 4384. Management Internship. 3 Credit Hours.
Participate in a management related position with a public or private business organization that is preapproved and supervised. May be repeated for a total of 6 credit hours. Prerequisite(s): MGMT 3301 and permission of department chair. Field experiences fee: $75.

MGMT 4388. Management Problems. 1-3 Credit Hours.
Study selected problems in management. Engage in independent research, reading and discussions under the personal direction of the instructor. Topics may vary according to student need. May be repeated with permission of department chair. Prerequisite(s): Senior standing and permission of department chair.

MGMT 5090. Management Comprehensive Examination. 0 Credit Hours.
Study and take the management examination for Non-thesis students. Register for the comprehensive examination during final semester of graduate coursework, or upon permission of advisor. All comprehensive examinations will be written, but an oral component may also be required. A maximum of three attempts will be allowed. Thesis students do not take this examination.

MGMT 5301. Organizational Behavior. 3 Credit Hours.
Learn behavioral theory in organizational context. Study individual and group dynamics in the business environment. Specific emphasis given to leadership, motivation, communication, employee supervision, and morale. Prerequisite(s): Management leveling.
MGMT 5302. Sustainable Business: A One Planet Approach. 3 Credit Hours.
The leaders of today’s organizations must navigate the challenges surrounding sustainability. Sustainability relates to the creation of long-term value for the triple bottom line of People, Planet and Profit through the adroit management of a firm’s social, environmental, and economic impact. This course will provide students with the understanding and tools necessary to integrate sustainability into the business disciplines (marketing, finance, operations, etc.), emphasize how sustainability challenges can be turned into strategic competitive advantage, explore emerging market opportunities for sustainable products and services, and underscore the role of leadership in innovating, organizing, and managing the changes necessary to adopt a “one-planet” approach to survive and thrive in this rapidly changing environment. Prerequisite(s): Management Leveling.

MGMT 5305. Analytical Methods of Management Decisions. 3 Credit Hours.
Study analytical techniques which may be used to facilitate decisions analysis. Learn concepts of utility, break even analysis, network models, linear programming, game theory and computer simulation. Use course activity to survey analytical techniques which may be used to facilitate analysis of alternative decisions and practice in applying the techniques through problem solving. Prerequisite(s): BUSI 3311 or MATH 3300 and graduate standing.

MGMT 5306. Influence Organizational Productivity By Interpersonal Relationships. 3 Credit Hours.
Learn the practicals and theories related to interpersonal behavior and its influence on organizational productivity. Learn to identify and classify behavior in order to better understand behavior and to develop strategies for creating productive relationships with others. Particular emphasis is directed toward the impact of interpersonal behavior in business organizations and the potential effect on productivity. A materials fee of $45 is required for needed course materials.

MGMT 5307. Responsibilities and Ethics of Leadership. 3 Credit Hours.
Analyze an organization’s social and environmental responsibilities to its employees, customers, and other key stakeholder groups. Emphasis is given to the case study method for evaluating the performance of various organizations. Develop a theoretical framework for understanding ethics, principles and values of leadership as they affect the organization, the organizational environment, and society. Prerequisite(s): Management Leveling.

MGMT 5308. Designing Organizations for Sustainable Effectiveness. 3 Credit Hours.
Examines theories, processes and “fit” models of organization design and alignment of structure, technology, information systems, reward systems, people and culture, and management processes with organizational goals. Emphasis is on maximizing the triple bottom line for sustainable effectiveness and how organizations can be led and managed so they are economically, socially, and environmentally sustainable. Prerequisite(s): Management Leveling.

MGMT 5309. Global Leadership for Sustainability. 3 Credit Hours.
This course is the integrating capstone course for the MS One Planet Leadership program. Examines both mainstream and emerging theories and approaches to leadership, including models of leadership for sustainability and developing the global mindset necessary for flourishing enterprises to maximize the triple bottom line. Applies leadership principles and models to varied organizational situations with a primary focus on developing leaders who can effectively deal with the economic, social, and environmental challenges global leaders face in today’s volatile and chaotic business climate. A culminating capstone sustainability case study project is a required part of the course. Students must make a B on this project to pass the course and a B in the course to graduate. Prerequisite(s): Students must have completed or be currently enrolled in the core courses for the program, MGMT 5301, MGMT 5308, & MGMT 5368, or instructor approval.

MGMT 5310. Leadership Formation and Development. 3 Credit Hours.
This course examines both mainstream and emerging theories and approaches to leadership development and formation, with an emphasis on case study and experiential methods of examining the application of leadership principles and models. It provides each student the opportunity to focus on developing their personal and organizational abilities and skills to become triple bottom line leaders who can better resolve the economic, social and environmental issues of the global, Internet age. Prerequisite(s): Management leveling.

MGMT 5311. Sustainable Operations & Services. 3 Credit Hours.
Focuses on providing students with a broad understanding and knowledge of operations and service management concepts. Emphasis will be placed on incorporating various aspects of sustainability, while designing, managing and controlling business operations and services. In addition, students will be exposed to several analytical tools, models and methodologies that are necessary to design, develop and evaluate various sustainable business operations. Prerequisites: Management and Statistics Leveling.

MGMT 5315. International Management for Sustainability. 3 Credit Hours.
This course will focus on international business management through a sustainability lens. Seminal and current research along with relevant real-world examples will be used to expose students to theories and frameworks pertinent to international business functions and cross-cultural management. The course will sensitize students to global business environment opportunities and stimulate generation of team-based international business solutions contributing to sustainable development and consistent with the triple bottom line approach. Prerequisite(s): Management leveling.

MGMT 5320. Negotiations. 3 Credit Hours.
Learn distributive negotiation, integrative negotiation, biases and pitfalls in negotiation, building trust, developing a negotiation style, power, persuasion, ethics, creativity and problem solving. Theoretical lecture/discussion and practical application/skill development, including in-class role plays, are used in this course. A materials fee of $40 is required for needed course materials.

MGMT 5330. Cross Sector Partnerships for Sustainability. 3 Credit Hours.
Cross-sector partnerships have proven to be one of the most effective approaches to complex environmental challenges. Through case studies of environmental partnerships, literature on collaboration strategies, reflective journals and field research, students will develop the skills necessary to lead future collaborative sustainability initiatives. Prerequisite(s): Management leveling.
MGMT 5340. Management Seminar. 3 Credit Hours.
Explore selected management topics of current importance to business management. May be repeated once for credit when topics vary.

MGMT 5345. Entrepreneurship. 3 Credit Hours.
The course is designed to cover the fundamentals of entrepreneurship. Students will be provided with tools and methods for successfully developing and launching a new venture. Students will have an opportunity to develop a business plan, and will be exposed to concepts such as creativity, risk-taking, and sustainable entrepreneurship.

MGMT 5350. Project Management. 3 Credit Hours.
Study a comprehensive overview of project management. Analyze culture, principles, and basic techniques of project management using the project life cycle as the primary organizational guideline. Learn project management functions and use basic tools of project management such as work breakdown structure, scheduling, contracting, earned value analysis, and risk management. A materials fee of $35 is required to support a learning simulation.

MGMT 5356. Global Management Practices. 3 Credit Hours.
Study basic international business concepts, cultural literacy, and discipline specific content applied to practical experiences and activities in a visited foreign country. 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. Prerequisite(s): Admission into a COBA graduate program and permission of instructor. Field experiences fee $75.

MGMT 5368. Development & Change for Learning Organizations. 3 Credit Hours.
Students apply strategies for developing organizational learning using behavioral science. Viewing organizations as complex ecological systems, students will master systems thinking related to organization development so that change efforts improve both the organization and the wider systems within which it operates. Prerequisite(s): MGMT 5301.

MGMT 5384. Management Internship. 3 Credit Hours.
Participate in a management related position with a public or private business organization that is preapproved and supervised. May be repeated for a total of 6 hours credit. Prerequisite(s): Permission of department chair. Field experiences fee $75.

MGMT 5388. Management Problems. 1-6 Credit Hours.
Study problems, topics, and perform research in management within the student's area of interest. Engage in independent research, reading and discussions under the personal direction of the instructor, topics may vary according to student need. This course offers students the opportunity to study. Prerequisite(s): Permission of department chair.

Marketing Courses

MKTG 3301. Marketing. 3 Credit Hours.
Examine principles and concepts of marketing goods, services, and intangibles by profit and non-profit organizations in a free enterprise and global economy.

MKTG 3312. Public Relations. 3 Credit Hours.
Study the techniques used in planning public relations programs for businesses, schools, churches, and civic associations. Learn press relations, crisis management, advertising, speech writing, and campaign activities. Prerequisite(s): MKTG 3301 and BUSI 3301.

MKTG 3315. Personal Selling. 3 Credit Hours.
Study the role and techniques of personal selling as a component of the marketing mix. Prerequisite(s): MKTG 3301 and BUSI 3301.

MKTG 3316. Consumer Behavior. 3 Credit Hours.
Analyze individual and group behavior of people performing in consumer role. Study buying motives, social class, and research techniques in consumer behavior. Prerequisite(s): MKTG 3301 and BUSI 3301.

MKTG 3317. Retailing. 3 Credit Hours.
Learn fundamental operations of retailing, studying of buying practices, pricing, store locations and layout, sales promotions, personnel management, and stock control. Study design to aid the student seeking a general knowledge of the retail field as well as those specializing in Marketing. Prerequisite(s): MKTG 3301 and BUSI 3301.

MKTG 3318. Promotional Strategy. 3 Credit Hours.
Study a controlled, integrated program of promotional variables. Learn how 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(s): MKTG 3301 and BUSI 3301.

MKTG 3320. Marketing Research. 3 Credit Hours.
Study accurate, objective, and systematic gathering, recording, and analyzing of data about problems relating to marketing goods and services. Prerequisite(s): MKTG 3301, BUSI 3301 and BUSI 3311.

MKTG 4301. Advertising. 3 Credit Hours.
Analyze advertising in modern media. Study the history, design, effects of advertising, and the uses of different media for advertising purposes. Prerequisite(s): MKTG 3301 and BUSI 3301.

MKTG 4302. Services Marketing. 3 Credit Hours.
Learn about service environment. Analyze the most successful service-oriented industries and firms within the world's fastest-growing economic sector. Prerequisite(s): MKTG 3301 and BUSI 3301.

MKTG 4305. Digital and Internet Marketing. 3 Credit Hours.
This course provides a theoretical and practical understanding of digital marketing. Students will learn various digital marketing practices such as managing and executing search engine optimization campaign (e.g., Google AdWords), building an effective website, and converting clicks into purchases through an experiential learning approach. Prerequisite: MKTG 3301.

MKTG 4316. Marketing Strategy. 3 Credit Hours.
Learning how to formulate and implement a strategic marketing plan to try to achieve a sustainable competitive advantage. This course uses practical approaches, including case studies and a marketing plan project. Prerequisites: MKTG 3301, MKTG 3316, and MKTG 3320 or permission of the instructor.

MKTG 4340. Marketing Seminar. 3 Credit Hours.
Examine the current issues/topics in Marketing. May be repeated for credit if the topic varies. Prerequisite(s): MKTG 3301, BUSI 3301 and permission of instructor.

MKTG 4354. International Marketing. 3 Credit Hours.
Study comparative marketing systems, including economic, social, technological, governmental, and political environments as they affect international marketing operations. Prerequisite(s): MKTG 3301, BUSI 3301 and BUSI 3344 or permission of department chair.
MKTG 4356. Global Marketing Practices. 3 Credit Hours.
Study basic international business concepts, cultural literacy, and discipline specific content applied to practical experiences and activities in a visited foreign country. A study abroad at the student's expense is required. Student may complete a maximum of six hours of SOBA sponsored study abroad toward degree completion. Field assignment fee: $75. Prerequisite(s): MKTG 3301, junior or senior standing and permission of instructor. BUSI 4354, MGMT 4356, or MKTG 4356 may not be taken concurrently.

MKTG 4384. Marketing Internship. 1-6 Credit Hours.
Participate in a marketing-related position with a public or private business organization that is preapproved and supervised. Acquiring a new marketing-related position after approval of the internship or the approval of experiences beyond the scope of the student's present job. May be repeated for a total of 6 hours credit. Prerequisite(s): MKTG 3301, Faculty Sponsorship, and permission of department chair. Field experiences fee: $75.

MKTG 4388. Marketing Problems. 1-6 Credit Hours.
Study of selected problems in marketing. Engage in independent research, reading and discussions under the personal direction of the instructor, topics may vary according to student need. May be repeated with permission of department chair. Prerequisite(s): Senior standing and permission of department chair.

MKTG 4389. Special Topics in Marketing. 3 Credit Hours.
Examine current topics in marketing. Explore required readings from current marketing publications and other related periodicals. May be repeated for credit when topics vary. Prerequisite(s): 9 hours of MKTG.

MKTG 5308. Marketing Management. 3 Credit Hours.
Study the planning and coordination of marketing functions specifically related to product, pricing, promotion, and distribution strategies. Explore case analysis and participate in presentation of results. Prerequisite(s): Marketing Leveling.

MKTG 5309. Marketing Strategy. 3 Credit Hours.
Develop the role of product, pricing, promotion, and channel and physical distribution in the development of a firm's integrated marketing program. Study cases used to evaluate and compose alternative courses of action.

MKTG 5310. Integrated Marketing Communications. 3 Credit Hours.
Study concepts associated with Integrated Marketing Communications (IMCs). Learn an experiential learning approach, wherein students apply the concepts learned in the classroom to the creation of an IMC campaign for an organization.

MKTG 5312. Brand Management. 3 Credit Hours.
Learn branding, what it is, how it works, how it acquires and maintains economic and non-economic value. Explore the origins, power, theory, meaning, relevance and practice of brands, brand development, brand metrics and brand management though an experiential learning approach. Prerequisite(s): MKTG 5308 or permission of department chair.

MKTG 5315. International Marketing. 3 Credit Hours.
Study comparative marketing systems, including economic, social technological, governmental, and political environments as the affect international marketing operations. Students will be required to complete an extensive research project in addition to other course requirements.

MKTG 5340. Marketing Seminar. 3 Credit Hours.
Explore selected marketing topics of current importance to business marketing. May be repeated once for credit when topics vary.

MKTG 5356. Global Marketing Practices. 3 Credit Hours.
Study of basic international business concepts, cultural literacy, and discipline specific content applied to practical experiences and activities in the foreign country. 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. Prerequisite(s) Course: Admission into a COBA graduate program and permission of instructor. Field experiences fee $75.

B.A.A.S. Information Technology

OVERVIEW
The Bachelor of Applied Arts and Sciences (BAAS) Information Technology is generally a transfer pathway for students with an Associate of Applied Science degree. Students may complete the program by obtaining credit for the relevant program coursework, up to 36 hours, for certifications, non-academic training in the field, and industry training.

Program Student Learning Outcomes
The student will be able to:

1. Demonstrate the ability to orally communicate effectively on technical and non-technical subjects in information technology.
2. Demonstrate the ability to write effectively on technical and non-technical subjects in information technology.
3. Work well independently and as a part of diverse teams.
4. Evaluate the implications of an ethical dilemma from a variety of ethical frameworks/perspectives and produce a well-reasoned resolution.
5. Analyze business requirements and design appropriate Information technology solutions.
6. Identify and evaluate Information technology solutions for business situations and select optimal solutions to meet the organization's needs.
7. Demonstrate an ability to apply general knowledge and skill related to data communications and infrastructure solutions to an organization's Information technology needs.
8. Demonstrate an ability to apply general knowledge and skills related to software application solutions to an organization's Information technology needs.
9. Demonstrate an ability to apply general knowledge and skills related to database solutions to an organization's Information technology needs.

Bachelor of Applied Arts and Sciences - Information Technology Without Concentration Program Requirements
Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.
The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan.

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1. For the Occupational/Technical Specialization credits, students must have a minimum of 12 semester credit hours consisting of technical, occupational, and military training and many include academic electives to complete the maximum allowable 36 semester credit hours.

**Bachelor of Applied Arts and Sciences - Information Technology Cybersecurity Concentration Program Requirements**

Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan.

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Bachelor of Applied Arts and Sciences - Information Technology Management and Networking Concentration Program Requirements

Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework; speak with a college advisor for an individualized student education plan.

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\(^1\) For the Occupational/Technical Specialization credits, students must have a minimum of 12 semester credit hours consisting of technical, occupational, and military training and many include academic electives to complete the maximum allowable 36 semester credit hours.
**Bachelor of Applied Arts and Sciences - Information Technology Software and Database Design Concentration Program Requirements**

Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

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<td>Structured Query Language</td>
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CIS 4379  Software Engineering for E-Business  3
Upper-Level CIS Elective  3

Total Credit Hours  120

1 For the Occupational/Technical Specialization credits, students must have a minimum of 12 semester credit hours consisting of technical, occupational, and military training and many include academic electives to complete the maximum allowable 36 semester credit hours.

Courses
CIS 3300. Computer Technology and Impact. 3 Credit Hours.
Explores computer technology with special attention to its impact on home, work, and school. Many topics are presented: hardware and software fundamentals, essential applications, telecommunications, internet, artificial intelligence, programming, and the future of these technologies. Students work with word processing, spreadsheet, database, and presentation software; other applications; and a programming language. No prior computer experience necessary.

CIS 3301. Business Analysis with Spreadsheets. 3 Credit Hours.
Examine theory and application of microcomputer technology applied in accounting, finance, management, and other business disciplines. Develop creative initiative, and study basic analytical skills in performing common business tasks. Credit for both CIS 3301 and ACCT 3301 will not be awarded.

CIS 3302. Introduction to Business Analytics. 3 Credit Hours.
Examine theory and application of business analytics applied in accounting, finance, marketing, management, and other business disciplines. Develop basic analytical skills to gain insights and make better decisions. Special emphasis on descriptive statistics, data visualization, descriptive data mining, linear regression, forecasting, optimization models, spreadsheet models, Monte Carlo simulation, and decision analysis.

CIS 3303. Programming Logic and Design. 3 Credit Hours.
This course introduces computer programming and problem solving in a structured program logic environment. Study the logic of decision-making, nested looping, multidimensional arrays, implementation of the structure theorem and Boolean algebra. Utilize structured flowcharts, structured pseudocode, hierarchy charts and decision tables, in order to document logical problem solutions. The course focuses on business problem solving and does not count as a programming language. No prior programming experience is necessary.

CIS 3304. Topics in Computer Information Systems. 3 Credit Hours.
Examine selected topics in programming languages, programming techniques, or job control languages. May be repeated once for credit as topics vary. Prerequisite(s): Varies with topic.

CIS 3305. Operating Systems Theory and Practice. 3 Credit Hours.
Study the history, development, and principles of computer operating systems and their variants in mainframe, minicomputer, server, and microcomputer application environments. Explore preferred operating systems representing various hardware environments. Special emphasis on related software issues, programming capabilities, and job control languages. Prerequisite(s): CIS 3303 or permission of department chair.

CIS 3306. Data Visualization. 3 Credit Hours.
Data visualization makes it easier to understand the data. The goal of this course is to introduce students to data visualization including both the principles and techniques. Students will learn the value of visualization, specific techniques in information visualization and scientific visualization, and how to understand how to best leverage visualization methods.

CIS 3307. Application Project with Laboratory. 3 Credit Hours.
Develop and document a software product using a formal software development process. Projects of value are actively sought from local businesses, governments, or nonprofit organizations when possible. May be repeated for credit when topics change. Prerequisite(s): Varies with topic.

CIS 3312. Technical Support Management and Operations. 3 Credit Hours.
Study the scope, significance, job skills, training, software availability, and support problems of technical support within the technology industry. Develop technical support skills, with an emphasis on the use of resources, troubleshooting, and customer relations.

CIS 3315. Web Site Development and Design. 3 Credit Hours.
This course introduces students to basic web design using HTML and CSS. The course does not require any prior knowledge of HTML or web design. Students learn how to plan and design effective web pages; implement web pages by writing HTML and CSS code; enhance web pages with the use of page layout techniques; text formatting, graphics, images, and multimedia; and produce a functional, multi-page website.

CIS 3330. C++ Programming. 3 Credit Hours.
Study structured C++ programming using microcomputers. Special emphasis on syntax, operators, functions, standard input/output, arrays, pointers, and structures in C++ programming. Prerequisite(s): COSC1309 OR COSC 1336 or CIS 3303 or concurrent enrollment or permission of department chair.

CIS 3331. Visual Basic Programming. 3 Credit Hours.
Study visual application development using Visual Basic and the native integrated development environment. Examine logic, working with forms, sequential and direct file access, and scope and visibility rules. Analyze problems within Visual Basic and develop programming solutions. Prerequisite(s): COSC1309 OR COSC 1336 or CIS 3303 or concurrent enrollment or permission of department chair.

CIS 3332. Java Programming. 3 Credit Hours.
Study applications development using Java. Examine identifiers and reserved words, objects and primitive data, program statements, arrays and vectors, exceptions and I/O streams, and graphical user interfaces. Analyze problems within Java and develop programming solutions. Prerequisite(s): COSC1309 OR COSC 1336 or CIS 3303 or concurrent enrollment or permission of department chair.

CIS 3340. Advanced C++ Programming. 3 Credit Hours.
Study C++ programming language. Examine advanced features of C++ such as classes, friends, abstraction, operator overloading, inheritance, polymorphism, templates, and object oriented programming techniques. Analyze problems within C++ and develop programming solutions. Prerequisite(s): CIS 3330 or permission of department chair.

CIS 3341. Advanced Visual Basic Programming. 3 Credit Hours.
Study Visual Basic programming techniques, including declaration and manipulation of arrays, accessing database files, and advanced data handling techniques. Analyze advanced problems in Visual Basic and develop programming solutions. Prerequisite(s): CIS 3331 or permission of department chair.
CIS 3342. Advanced Java Programming. 3 Credit Hours.
Study Java programming language. Examine advanced Java capabilities, including class features, error handling, security techniques, Java streams, JavaBeans, database connectivity, Java servlets, Java Server pages, and advanced object-oriented programming techniques. Analyze advanced Java problems and develop programming solutions. Prerequisite(s): CIS 3332 or permission of department chair.

CIS 3343. C# Programming for Windows and the Web. 3 Credit Hours.
Use C# programming language to create Windows applications in the Internet and intra-network environment. Explore object-oriented design, client-server interaction, event-driven programming, graphical user interfaces, distributed data, and distributed applications. Prerequisite(s): CIS 3330 or CIS 3331 or CIS 3332 or permission of the department chair.

CIS 3345. Topics in Personal Computer Software and Application. 3 Credit Hours.
Examine selected personal computer applications and software packages. Explore the operation and usefulness of commonly available personal computing software solutions. May be repeated once for credit as topics vary. Prerequisite(s): Varies with topic.

CIS 3346. Personal Computer Technology. 3 Credit Hours.
Examine the technology and hardware operations in microcomputers, their peripherals, and operating system software. Special emphasis on hardware configuration and selection, installation and test procedures, and routine maintenance.

CIS 3347. Data Communications and Infrastructure. 3 Credit Hours.
A study of telecommunications architecture, industry standards and communications protocols, the placement of networking devices and components, transmission media selection, logical and physical topologies, voice and data transmission, and structured cabling for local area networks (LANs) and wide area networks (WANs). Application exercises will include evaluating alternatives available in hardware, software, and transmission facilities, design integration, selection and implementation of communications and networking solutions. In addition, students will explore the current and future impact and directions of these technologies. Students will complete an architecture design project that will include required components and address services as specified in an industry specific Request for Proposal (RFP).

CIS 3348. Networking Architecture and Design. 3 Credit Hours.
Examine industry standards and communications protocols in networking. Learn placement of networking devices, transmission media selection, topologies, data transmission, and structured cabling for LANs and WANs. Develop network designs as specified in an industry specific Request for Proposal (RFP). Prepare and present a design proposal in response to an RFP, and installation, configuration, testing and troubleshooting of WAN/LAN wiring interface technologies. Prerequisite(s): CIS 3347 or permission of department chair.

CIS 3351. Data Structures. 3 Credit Hours.
Study theory and applications of commonly used computer data structures, files, file organization and access methods, databases, and other storage and retrieval methods. Prerequisite(s): CIS 3340 or CIS 3341 or CIS 3342 or CIS 3343 or concurrent enrollment or permission of department chair.

CIS 3360. Ethics in Computing. 3 Credit Hours.
(WI) Examine personal and contemporary organizational ethical issues and challenges in the design, development and the use of computing technologies in a global environment. Special emphasis on the philosophical basis for computer ethics, reliability and safety of computer systems, protecting software and other intellectual property, computer crime and legal issues, and professional codes of ethics (AIS, ACM, IEEE etc.).

CIS 3361. Introduction to Computer Forensics. 3 Credit Hours.
The course focuses on clear and authoritative instructions about the field of computer forensics as it applies to the investigative process; from the collection of digital evidence to the presentation of Computer Forensic Examination findings in a court of law. Upon successful completion of the course, students will have a basic understanding of the computer forensic process, the scientific procedure involved in accounting, law enforcement, and computer sciences. Topics also include the science of computer forensics and how it relates to and is utilized within the judicial system of the United States.

CIS 3365. System Analysis and Design. 3 Credit Hours.
Examine 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. Analyze traditional and current methodologies in design, including computer aided analysis and design tools. Prerequisite(s): CIS 3330 or CIS 3331 or CIS 3332 or permission of department chair.

CIS 3367. Cooperative Education. 3 Credit Hours.
Develop and apply relevant CIS concepts in a work environment. Work in an approved professional CIS setting for approximately 300 hours before credit will be granted. To remain in the program, the student must remain in good standing with the university and employer. May be repeated once for credit. Prerequisite(s): Permission of co-op coordinator and department chair, and formal application to the program. Field experience fee $75.

CIS 3387. Cooperative Education. 3 Credit Hours.
Develop and apply relevant CIS concepts in a work environment. Work in an approved professional CIS setting for approximately 300 hours before credit will be granted. To remain in the program, the student must remain in good standing with the university and employer. May be repeated once for credit. Prerequisite(s): Permission of co-op coordinator and department chair, and formal application to the program. Field experience fee $75.

CIS 3389. Special Topics in Computer Information Systems. 3 Credit Hours.
Examine selected issues, products, and technology current to computer information systems. This course may be repeated once for credit. Prerequisite(s): Varies with the topic or permission of department chair.

CIS 4301. Database Theory and Practices. 3 Credit Hours.
Examine database concepts and structures, and understand file and data management principles underlying database construction. Learn fundamental types of database models, with emphasis on relational databases and major non-relational forms. Develop skills in analysis, design, development, and optimization of working database applications on a variety of problems. Prerequisite(s): 12 hours of CIS courses or permission of department chair.

CIS 4302. Advanced Business Analytics. 3 Credit Hours.
Follow the traditional descriptive/predictive/prescriptive framework to analyze large sets of data and explain the theory of formulating statistical models. Special emphasis on cluster analysis, Naïve Bayes, Optimization Modeling, simple and multiple linear regression, and ensemble modeling. Prerequisite(s): CIS 3302.

CIS 4303. Data Mining. 3 Credit Hours.
Discover basic concepts, tasks, methods, and techniques in data mining, and analyze data mining problems and their solutions. Develop an understanding of the data mining process, learn various techniques for data mining, and apply the techniques in solving problems using data mining tools and systems. Prerequisite(s): CIS 3302 or CIS 4301.
CIS 4307. Topics in Networking. 3 Credit Hours.
Explore selected topics in alternative or innovative network software packages, including network focused tools, utilities, and operating systems. Special emphasis on an exploration of the usefulness and operation of the topic of study. May be repeated once for credit as topics vary. Prerequisite(s): Varies with topic.

CIS 4308. Advanced Programming Language. 3 Credit Hours.
Develop programming proficiency in a modern programming language. May be repeated as topics vary. Prerequisite(s): Varies with topic or Permission of department chair.

CIS 4309. Decision Support Methods. 3 Credit Hours.
Use computer-based decision, analysis, planning, and presentation methods in the context of management strategy and problem-solving policy. Apply software tools such as databases, spreadsheets, statistical graphics, and presentation programs for extracting, organizing and presenting information in support of management decision making. Prerequisite(s): COSC 1301 or CIS 3300, or ACCT 2302 or ACCT 2402 or MGMT 3301 or FIN 3301 or MKTG 3314 or BUSI 3311, or permission of department chair.

CIS 4310. Artificial Intelligence. 3 Credit Hours.
A study of AI programming techniques and tools. Topics include Expert Systems, Neural Networks, Genetic Algorithms, Automatic Programming, heuristic search, and others. Prerequisite(s): CIS 3330 or CIS 3331 or CIS 3332 or permission of department chair.

CIS 4311. Android Application Development. 3 Credit Hours.
This course explores the design and development of mobile applications such as Android, including resources, user interfaces, services, alarms, maps and location based services. Prerequisite(s): CIS 3332 or Permission of Department Chair.

CIS 4335. UNIX Systems Administration. 3 Credit Hours.
Examine the underlying conceptual considerations of the UNIX operating system and its variants in mainframe, minicomputer, server and microcomputer application environments. Explore memory and process management, multi-programming and processing, interrupt structure, and parallel processing mechanisms and procedures. Special emphasis on practical application of configuration and security of selected UNIX systems. Prerequisite(s): CIS 3305 or 12 hours of CIS courses or permission of department chair.

CIS 4340. Algorithm Design and Analysis. 3 Credit Hours.
Examine computer algorithms, and learn to select appropriate algorithms for tasks within specific computing environments. Study searching and sorting algorithms for their importance in computing. Special emphasis on efficiency, readability, maintainability, advanced design and analysis techniques, advanced data structures, and graph algorithms. Prerequisite(s): CIS 3351 or concurrent enrollment or permission of department chair.

CIS 4341. Information Technology Security and Risk Management. 3 Credit Hours.
Examine the fundamental principles and topics of Information Technology Security and Risk Management at the organizational level. Learn critical security principles and best practices in order to plan, develop and perform security tasks. Special emphasis on hardware, software, processes, communications, applications, and policies and procedures with respect to organizational IT Security and Risk Management. Prerequisite(s): 12 hours of CIS Courses or Permission of the department chair.

CIS 4342. Computer Security Principles and Practices. 3 Credit Hours.
Explore current principles, theories, and concepts behind computer security. Examine basic methods and practices of security as it affects modern business operations. Special emphasis on cryptography, authentication, access control, database security, malware, intrusion detection, firewalls, security policy and management, software and operating system security, auditing and legal aspects of cyber security. Prerequisite(s): 12 hours of CIS courses or permission of department chair.

CIS 4343. Advanced Systems and Analysis. 3 Credit Hours.
Examine data and process decomposition, and modeling in advanced systems analysis. Study the CASE tools which support models and interaction analysis of process and data. Explore the enterprise-wide view of system analysis, and understand the theory behind and the generation of normalized relational database tables. Prerequisite(s): CIS 3365 and CIS 4301 or permission of department chair.

CIS 4345. Network and Systems Security. 3 Credit 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 and networks. Areas covered include information and message security, database and file integrity, physical security, security management, security risk analysis, and encryption/cryptography. Will include practical laboratories in the analysis, and configuration of networking security protocols and tools. Prerequisites: CIS 3347 or approval of Department Chair. Lab fees: $95.

CIS 4346. Applied Security. 3 Credit Hours.
This course will validate and develop in-depth hands on knowledge about the operation and defense from malicious attacks. It builds on previous course work to understand rapid recovery and defense of systems from attack. Students develop knowledge about system vulnerabilities and the process of penetration of systems as a way to evaluate the security of systems. Specific topics include social engineering, malware and malicious software usage and identification, network security tool familiarization and system hardening. Prerequisite(s): CIS 3347 and (CIS 4341 or CIS 4342) or approval of department chair. Lab Fee: $95.

CIS 4348. Security Trends and Malware Analysis. 3 Credit Hours.
This course analyzes and investigates security threats and ethical hacking methods. It will introduce students to modern malware analysis techniques through a detailed examination of malware, virus, and malicious code operation by examining case studies and hands-on interactive analysis of real world samples. The course will also examine in detail current trends in the threat environment and the most current attack exploits. Student will use a variety of methods to investigate current security threats and their mitigation. Topics include malware morphology, disassembly of malware, ethical hacking methods on systems including penetration, and trends in the threat-scape. Prerequisite(s): CIS 4345 or CIS 4346 or approval of department chair. Lab fees $95.

CIS 4350. Management Information Systems. 3 Credit Hours.
Study management issues related to business information systems designed to meet the informational needs of the various business subsystems. Special emphasis on the concepts of systems development, security, privacy and ethics associated with information systems.
CIS 4351. IS Project Management. 3 Credit Hours.
This course studies the processes, methods, techniques and tools that organizations use to manage their information systems projects. The course covers a systematic methodology for initiating, planning, executing, controlling, and closing projects. This course assumes that project management in the modern organization is a complex team based activity, where various types of technologies (including project management software as well as software to support group collaboration) are an inherent part of the project management process. This course also acknowledges that project management involves both the use of resources from within the firm, as well as contracted from outside the organization. Prerequisite: Senior standing or approval of department chair.

CIS 4352. Structured Query Language. 3 Credit Hours.
Study relational database schema, formulating queries and sub-queries of varying complexity, embedding query statements in a “host” language, and defining and querying data views. Prerequisite(s): CIS 4301 or permission of department chair.

CIS 4360. Strategic Information Systems. 3 Credit Hours.
(WI) This course will explore necessary management actions, which will ensure that information is available, correct, manipulatable, protected, and archived in proper forms to allow for a strategic use of information systems in the enterprise. Throughout this course we will review a set of conceptual frameworks of IT management, and by developing a critical view of two levels of IT management – strategic and tactical. We will address the value/importance of IT from strategic and tactical perspectives, and the IT management challenges of managing people, processes and technology. Prerequisite(s): Senior Standing or CIS 4350 or Permission of Department Chair.

CIS 4375. Professional Senior Seminar. 3 Credit Hours.
Participate in professional organizations, current events, research and presentations, job market analysis, interviewing, and resume preparation, in order to prepare for the professional certification exam. Prerequisite(s): 24 hours of CIS courses.

CIS 4376. Network Administration. 3 Credit Hours.
Study communications architectures, protocols, and interfaces as related to network operating systems. Examine communications networking techniques, such as DHCP and DNS server configuration and internet working. Examine industry standards in networking. Special emphasis on installation, configuration, client handling, basic security, and troubleshooting of a network operating system. Use a modern network operating system in order to gain experience in configuration and administration of a network. Lab fee $95. Prerequisite(s): CIS 3347 or permission of department chair.

CIS 4378. Comprehensive Networking. 3 Credit Hours.
A course requiring the student to learn details of various networking protocols and engage in analyzing and designing various computer network applications. Specifically, the course will focus on the OSI and TCP/IP networking protocols, including subnetting of IP address, local area networking (LAN), wide area networking (WAN) and network analysis. This course includes hands-on exercises on various networking layer messages on live web traffic and explore them to understand overall networking process. Lab fees: $95. Prerequisite(s): CIS 3347 or permission of department chair.

CIS 4379. Software Engineering for E-Business. 3 Credit Hours.
(WI) 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. Students study a software life-cycle model, fundamental software engineering principles, and documentation standards in detail. An E-Business team project is required, which emphasizes the production of high quality software for medium and larger scale projects. Prerequisite(s): (CIS 3340 or CIS 3341 or CIS 3342) and senior standing.

CIS 4380. Software Engineering. 3 Credit Hours.
Examine the production of high quality software for medium and larger scale projects. Explore theoretical software engineering research as the basis for a practical approach to developing quality software. Special emphasis on the software life-cycle model, fundamental software engineering principles, and documentation standards in detail. Prerequisite(s): CIS 3340 or CIS 3341 or CIS 3342 or CIS 3343 and senior standing.

CIS 4384. Internship in Computer Information Systems. 3 Credit Hours.
Gain practical work experience as a programmer/programmer analyst. Apply the principles, concepts, and skills learned during the first three years of collegiate training to the field of computer information systems. May be repeated for credit. Prerequisite(s): Permission of internship coordinator or department chair. Field experience fee $75.

CIS 4388. Computer Information Systems Problems. 1-3 Credit Hours.
Explore selected topics in business on technical computer applications, practicum, field project, or other suitable computer studies. Prerequisite(s): Varies with topic or Permission of department chair.

CIS 5090. Computer Information Systems Comprehensive Examination. 0 Credit Hours.
Prepare for and take the CIS comprehensive exam. Students should take this exam in their last semester, their second to last semester, or when all the core classes have been taken. Students taking the thesis option do not need to take this exam.

CIS 5302. Object Oriented Programming. 3 Credit Hours.
This course covers the concepts of object-oriented approach to software design and development. It includes a detailed discussion of programming concepts starting with the fundamentals of data types, control structures, arrays, classes and proceeding to advanced topics such as inheritance and polymorphism, creating user interfaces, and exceptions. Upon completion of this course the students will be able to design and implement applications.

CIS 5304. Data Communications for Managers. 3 Credit Hours.
Examine 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. Upon completion of this course, the students will be able to evaluate, select, and implement different data network options.
CIS 5307. Advanced Systems Analysis and Design. 3 Credit Hours.
Examine system analysis and design processes. Students will be introduced to comparative development methodologies and modeling tools including project management and cost-benefit analysis; information systems planning and project identification and selection; requirements collection and structuring; process modeling; conceptual and logical data modeling; database design and implementation; design of the human-computer interface; system implementation; system maintenance and change management.

CIS 5311. Management Information Systems. 3 Credit Hours.
Study the management and use of information and technology as a resource to create competitive organizations, manage global operations, provide useful products and quality services. Examine intellectual property, privacy, organizational and societal impact, legal issues, ethics, security issues, decision making, strategic information systems, and organizational support systems.

CIS 5312. Technology Support Management Operations. 3 Credit Hours.
Study issues of organizing and staffing a technical support help desk. Explore the numerous management techniques and operational concepts that businesses and governmental organizations use to manage successful technical support activities. Survey the wide array of commercially available technical support software, and work with the public to deliver technical support in an operational environment.

CIS 5316. Advanced Database Management. 3 Credit Hours.
Examine the methodologies of database management including data models, database design, normalization, SQL/PLSQL, NoSQL, performance and reliability, distributed database, data dictionaries, data integrity, security, and privacy.

CIS 5318. Quantitative Concepts. 3 Credit Hours.
Examine and apply measurement techniques to information technology related problems. Use a statistical program to analyze data, and perform analyses of programs and selected algorithms.

CIS 5319. Business Intelligence Systems. 3 Credit Hours.
Examine the fundamentals of Business Intelligence including concepts, techniques and applications. Special emphasis on Decision Support Systems and other collaborative systems, Data Management, Data Mining, Data Visualization, Expert Systems and Intelligent Systems.

CIS 5320. Information Systems Seminar. 3 Credit Hours.
Explore selected topics in information systems. Topics will vary. May be repeated once for credit as topics vary.

CIS 5325. Unified Modeling Language. 3 Credit Hours.
This course covers Systems Development Life Cycle using the Unified Modeling Language (UML) in an object-oriented software system environment. Topics include modeling the elements, structure, and behaviors of object-oriented software systems using UML. Upon completion of this course, students will be able to use UML to identify objects and classes, capture requirements and define use cases, to extend and enhance visual models, and model the details of object behavior with activity and state-chart diagrams.

CIS 5344. Scripting Languages for Web Design. 3 Credit Hours.
This course is a study of Web Scripting languages and will cover many aspects of creating dynamic Web Sites using server-side and client-side scripting. It will also delve into interactions between Web Sites and a database.

CIS 5345. Extensible Markup Language. 3 Credit Hours.
Study well-formed XML and validated XML documents and the language facilities for working with hierarchical data. Describe and transform XML data to an external presentation using real world problems.

CIS 5349. Topics in Programming. 3 Credit Hours.
Develop programming proficiency in a modern programming language. Undertake multiple programming assignments to achieve necessary knowledge and skills. May be repeated once for credit as topics vary. Prerequisite(s): Varies with Topic.

CIS 5351. Information Technology Project Management. 3 Credit Hours.
Study the concepts and practices of project management and its importance to improving the success of information technology projects. Utilize project management concepts and techniques within group projects, as a project manager or active team member. Topics include techniques for planning, organizing, scheduling, and controlling information systems projects.

CIS 5353. Big Data Analytics and Management. 3 Credit Hours.
Study fundamental concepts and principles of Big Data Analytics and its role in supporting/enhancing organizational decision making and predictions. Special emphasis on Big Data, trends, challenges and applications, analytic methods, tools, technologies, infrastructure and strategies for Big Data Management, data Privacy and Ethics. Prerequisite(s): CIS 5311 or permission of department chair.

CIS 5354. Advanced Methods in Big Data Analytics. 3 Credit Hours.
Study advanced concepts and principles of Big Data Analytics and its role in supporting/enhancing organizational decision making and predictions. Special emphasis on NoSQL Databases, Hadoop Ecosystem, MapReduce, Pig, Hive, Natural Language Processing, Social Network Analysis, and Data Visualization. Prerequisite(s): CIS 5353, Java Programming or permission of department chair.

CIS 5365. Web Development. 3 Credit Hours.
Examine theory and application of the multimedia application development process. Develop the web-based authoring and scripting tools, to use in the creation of various types of web-based projects. Special emphasis on the planning, design, projection, and evaluation of interactive web-based projects for delivery through a variety of media.

CIS 5370. Foundations of Information Security. 3 Credit Hours.

CIS 5376. Network Administration and Design. 3 Credit Hours.
This course explores network design, installation planning, and preparation. Topics include installing network operating system; establishing network security and services; exploring network administration, network utilities, maintenance techniques; monitoring performance; troubleshooting and configuring the network.

CIS 5380. E-Business Application Development. 3 Credit Hours.
This course provides an in-depth knowledge of systematic approach to analyze digital markets. Upon completion of this course, students will be able to design and implement an e-business project integrating database, and scripting languages. Prerequisite: CIS 5316 or perm of Chair.

CIS 5381. Research Project with Laboratory. 3 Credit Hours.
Engage in independent study in selected topics in Information Systems. May be repeated for credit once when topics change. Prerequisite(s): Varies with topic.
CIS 5382. Research Methods in Computer Information Systems. 3 Credit Hours.
This course provides an overview of research problems and techniques in information systems. Upon completion of this course, students will be able to formulate a research question; conduct a literature survey; select appropriate research methods to answer their research questions; collect and analyze data.

CIS 5384. Computer Information Systems Internship. 3 Credit Hours.
Engage in a supervised professional experience in an information technology-related position with a public or private organization. May be repeated for a total of 6 hours credit. Prerequisite(s): 6 semester hours of CIS courses or equivalent and permission of internship coordinator or department chair. Field experience fee $75.

CIS 5388. Computer Information Systems Problems. 1-3 Credit Hours.
Study selected topics in CIS 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(s): Varies with topic.

CIS 5389. Special Topics in Computer Information Systems. 3 Credit Hours.
Study selected current topics in computer information systems. May be repeated once for credit as topics vary. Prerequisite(s): Varies with topic.

CIS 5398. Computer Information Systems Thesis. 1-6 Credit Hours.
Prepare and write the information systems thesis. Scheduled when the student is ready to begin the thesis. No credit until the thesis is accepted. Prerequisite(s): CIS 5382, 18-hours.

B.S. Computer Information Systems

OVERVIEW

The Bachelor of Sciences (BS) in Computer Information Systems at Texas A&M University-Central Texas provides a solid foundation in critical thinking, analysis, design, building, and implementation of information systems. Students will gain a specialized knowledge of information systems and general knowledge of business. Studies will include systems analysis, design, and management, as well as programming, database management, IT security and risk management, networking, and software engineering.

Depending on career preference, students can choose from four areas of specialization: Business Analytics, Cybersecurity, Management & Networking, and Software Engineering & Database Design.

Program Level Student Learning Outcomes

The student will be able to:

1. Communicate effectively on technical and non-technical subjects in computer information systems.
2. Analyze business requirements and design appropriate information systems solutions.
3. Identify and evaluate Information Systems solutions for business situations and select ethical and optimal solutions to meet the organization’s needs.
4. Apply general knowledge and skills related to data communications and infrastructure solutions to an organization’s Information Systems needs.
5. Apply general knowledge and skills related to IT security and risk management in an organization’s Information Systems needs.
6. Apply general knowledge and skills related to software applications solutions to an organization’s Information Systems needs.
7. Apply general knowledge and skills related to database needs to an organization’s Information Systems needs.
8. Demonstrate a depth of knowledge in an area of concentration to address complex design problems.

Bachelor of Science - Computer Information Systems Without Concentration Program Requirements

Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan.

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### Bachelor of Science - Computer Information Systems Business Analytics Concentration Program Requirements

Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan.

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<tr>
<td>or COSC 1301</td>
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<tr>
<td>CIS 3303</td>
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<tr>
<td>or COSC 1315</td>
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Texas A&M University Central Texas 2020-2021

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<td>CIS 3302</td>
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**Spring**

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<td>Business Statistics</td>
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**Fourth Year**

**Fall**

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**Spring**

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**Total Credit Hours** 120

1. Lower Level Electives, Any Level Electives, Component Area Options, or Degree Requirements (DEG REQ) may consist of the FOS courses: MATH 2413, MATH 2414, MATH 2305, COSC 1436, COSC 1437, COSC 1320, PHYS 2425, PHYS 2426 (or 3 credit hour lecture and 1 hour lab courses for PHYS), one of the following: COSC 2325, COSC 2425.

**Bachelor of Science - Computer Information Systems Cybersecurity Concentration Program Requirements**

Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan.

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**Second Year**

**Fall**

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**Third Year**

**Fall**

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Bachelor of Science - Computer Information Systems Management and Networking Concentration Program Requirements

Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

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CIS 3360  Ethics in Computing  3

**Fourth Year**

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| Spring     | CIS 4360 | Strategic Information Systems             | 3            |
|            | CIS 4351 | IS Project Management                     | 3            |
|            | CIS 4335 | UNIX Systems Administration               | 3            |
|            | CIS 4378 | Comprehensive Networking                  | 3            |

**Upper-Level CIS or COSC Elective**  3

**Total Credit Hours**  120

1. Lower Level Electives, Any Level Electives, Component Area Options, or Degree Requirements (DEG REQ) may consist of the FOS courses: MATH 2413, MATH 2414, MATH 2305, COSC 1436, COSC 1437, COSC 2436, PHYS 2425, PHYS 2426 (or 3 credit hour lecture and 1 hour lab courses for PHYS), one of the following: COSC 2325, COSC 2425.

---

**Bachelor of Science - Computer Information Systems Software Engineering and Database Design Concentration Program Requirements**

Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

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| **Second Year**                                      |              |              |
| Fall       | CORE REQ Life and Physical Sciences (030)                 | 3            |
|            | GOVT 2305  Federal Government (CORE REQ (070)               | 3            |
|            | ECON 2302  Principles of Microeconomics (CORE REQ (090)    | 3            |
|            | Any Level Elective 1                                      | 3            |
|            | Any Level Elective 1                                      | 3            |
| Spring     | CORE REQ Life and Physical Sciences (030)                 | 3            |
|            | GOVT 2306  Texas Government (CORE REQ (070)                 | 3            |
|            | CORE REQ Language, Philosophy, and Culture (040)           | 3            |
|            | Any Level Elective 1                                      | 3            |
|            | Any Level Elective 1                                      | 3            |

| **Third Year**                                       |              |              |
| Fall       | C 3330  Computer Technology and Impact 1                  | 3            |
|            | or BCIS 1305  Business Computer Applications                |              |
|            | or COSC 1301  Introduction to Computing                     |              |
|            | C 3303  Programming Logic and Design                       | 3            |
|            | or COSC 1315  Fundamentals of Programming                   |              |
|            | C 3315  Web Site Development and Design                    | 3            |
|            | MGMT 3301  Principles of Management                        | 3            |
|            | C 3330  C++ Programming                                    | 3            |
|            | or C 3331  Visual Basic Programming                         |              |
|            | or C 3332  Java Programming                                |              |
|            | or COSC 1320  C Programming I                              |              |
|            | or COSC 1336  Programming Fundamentals I                   |              |
| Spring     | C 3340  Advanced C++ Programming                            | 3            |
|            | or C 3341  Advanced Visual Basic Programming               |              |
|            | or C 3342  Advanced Java Programming                       |              |
|            | or C 3343  C# Programming for Windows and the Web           |              |
|            | BUSI 3311  Business Statistics                            | 3            |
|            | C 4341  Information Technology Security and Risk Management | 3            |
|            | C 3347  Data Communications and Infrastructure             | 3            |
|            | C 3360  Ethics in Computing                                | 3            |
This course introduces computer technology with special attention to its impact on home, work, and school. Many topics are presented: hardware and software fundamentals, essential applications, telecommunications, internet, artificial intelligence, programming, and the future of these technologies. Students work with word processing, spreadsheet, database, and presentation software; other applications; and a programming language. No prior computer experience necessary.

CIS 3301. Business Analysis with Spreadsheets. 3 Credit Hours.
Examine theory and application of microcomputer technology applied in accounting, finance, management, and other business disciplines. Develop creative initiative, and study basic analytical skills in performing common business tasks. Credit for both CIS 3301 and ACCT 3301 will not be awarded.

CIS 3302. Introduction to Business Analytics. 3 Credit Hours.
Examine theory and application of business analytics applied in accounting, finance, marketing, management, and other business disciplines. Develop basic analytical skills to gain insights and make better decisions. Special emphasis on descriptive statistics, data visualization, descriptive data mining, linear regression, forecasting, optimization models, spreadsheet models, Monte Carlo simulation, and decision analysis.

CIS 3303. Programming Logic and Design. 3 Credit Hours.
This course introduces computer programming and problem solving in a structured program logic environment. Study the logic of decision-making, nested looping, multidimensional arrays, implementation of the structure theorem and Boolean algebra. Utilize structured flowcharts, structured pseudocode, hierarchy charts and decision tables, in order to document logical problem solutions. The course focuses on business problem solving and does not count as a programming language. No prior programming experience is necessary.

CIS 3304. Topics in Computer Information Systems. 3 Credit Hours.
Examine selected topics in programming languages, programming techniques, or job control languages. May be repeated once for credit as topics vary. Prerequisite(s): Varies with topic.

CIS 3305. Operating Systems Theory and Practice. 3 Credit Hours.
Study the history, development, and principles of computer operating systems and their variants in mainframe, minicomputer, server, and microcomputer application environments. Explore preferred operating systems representing various hardware environments. Special emphasis on related software issues, programming capabilities, and job control languages. Prerequisite(s): CIS 3303 or permission of department chair.

CIS 3306. Data Visualization. 3 Credit Hours.
Data visualization makes it easier to understand the data. The goal of this course is to introduce students to data visualization including both the principles and techniques. Students will learn the value of visualization, specific techniques in information visualization and scientific visualization, and how to understand how to best leverage visualization methods.

CIS 3307. Application Project with Laboratory. 3 Credit Hours.
Develop and document a software product using a formal software development process. Projects of value are actively sought from local businesses, governments, or nonprofit organizations when possible. May be repeated for credit when topics change. Prerequisite(s): Varies with topic.

CIS 3312. Technical Support Management and Operations. 3 Credit Hours.
Study the scope, significance, job skills, training, software availability, and support problems of technical support within the technology industry. Develop technical support skills, with an emphasis on the use of resources, troubleshooting, and customer relations.

CIS 3315. Web Site Development and Design. 3 Credit Hours.
This course introduces students to basic web design using HTML and CSS. The course does not require any prior knowledge of HTML or web design. Students learn how to plan and design effective web pages; implement web pages by writing HTML and CSS code; enhance web pages with the use of page layout techniques, text formatting, graphics, images, and multimedia; and produce a functional, multi-page website.

CIS 3330. C++ Programming. 3 Credit Hours.
Study structured C++ programming using microcomputers. Special emphasis on syntax, operators, functions, standard input/output, arrays, pointers, and structures in C++ programming. Prerequisite(s): COSC1309 or COSC 1336 or CIS 3303 or concurrent enrollment or permission of department chair.

CIS 3331. Visual Basic Programming. 3 Credit Hours.
Study visual application development using Visual Basic and the native integrated development environment. Examine logic, working with forms, sequential and direct file access, and scope and visibility rules. Analyze problems within Visual Basic and develop programming solutions. Prerequisite(s): COSC1309 or COSC 1336 or CIS 3303 or concurrent enrollment or permission of department chair.

CIS 3332. Java Programming. 3 Credit Hours.
Study applications development using Java. Examine identifiers and reserved words, objects and primitive data, program statements, arrays and vectors, exceptions and I/O streams, and graphical user interfaces. Analyze problems within Java and develop programming solutions. Prerequisite(s): COSC1309 or COSC 1336 or CIS 3303 or concurrent enrollment or permission of department chair.

CIS 3350. Management Information Systems.

CIS 3351. IS Project Management.

CIS 3365. System Analysis and Design.


CIS 3351. Data Structures.

CIS 4360. Strategic Information Systems.

CIS 4340. Algorithm Design and Analysis.

CIS 4352. Structured Query Language.

CIS 4379. Software Engineering for E-Business.

Upper-Level CIS or COSC Electives 3

Total Credit Hours 120

1 Lower Level Electives, Any Level Electives, Component Area Options, or Degree Requirements (DEG REQ) may consist of the FOS courses: MATH 2413, MATH 2414, MATH 2305, COSC 1436, COSC 1437, COSC 2436, PHYS 2425, PHYS 2426 (or 3 credit hour lecture and 1 hour lab courses for PHYS), one of the following: COSC 2325, COSC 2425.
CIS 3340. Advanced C++ Programming. 3 Credit Hours.
Study C++ programming language. Examine advanced features of C++ such as classes, friends, abstraction, operator overloading, inheritance, polymorphism, templates, and object oriented programming techniques. Analyze problems within C++ and develop programming solutions. Prerequisite(s): CIS 3330 or permission of department chair.

CIS 3341. Advanced Visual Basic Programming. 3 Credit Hours.
Study Visual Basic programming techniques, including declaration and manipulation of arrays, accessing database files, and advanced data handling techniques. Analyze advanced problems in Visual Basic and develop programming solutions. Prerequisite(s): CIS 3331 or permission of department chair.

CIS 3342. Advanced Java Programming. 3 Credit Hours.
Study Java programming language. Examine advanced Java capabilities, including class features, error handling, security techniques, Java streams, JavaBeans, database connectivity, Java servlets, Java Server pages, and advanced object-oriented programming techniques. Analyze advanced Java problems and develop programming solutions. Prerequisite(s): CIS 3332 or permission of department chair.

CIS 3343. C# Programming for Windows and the Web. 3 Credit Hours.
Use C# programming language to create Windows applications in the Internet and intra-network environment. Explore object-oriented design, client-server interaction, event-driven programming, graphical user interfaces, distributed data, and distributed applications. Prerequisite(s): CIS 3330 or CIS 3331 or CIS 3332 or permission of the department chair.

CIS 3345. Topics in Personal Computer Software and Application. 3 Credit Hours.
Examine selected personal computer applications and software packages. Explore the operation and usefulness of commonly available personal computing software solutions. May be repeated once for credit as topics vary. Prerequisite(s): Varies with topic.

CIS 3346. Personal Computer Technology. 3 Credit Hours.
Examine the technology and hardware operations in microcomputers, their peripherals, and operating system software. Special emphasis on hardware configuration and selection, installation and test procedures, and routine maintenance.

CIS 3347. Data Communications and Infrastructure. 3 Credit Hours.
A study of telecommunications architecture, industry standards and communications protocols, the placement of networking devices and components, transmission media selection, logical and physical topologies, voice and data transmission, and structured cabling for local area networks (LANs) and wide area networks (WANs). Application exercises will include evaluating alternatives available in hardware, software, and transmission facilities, design integration, selection and implementation of communications and networking solutions. In addition, students will explore the current and future impact and directions of these technologies. Students will complete an architecture design project that will include required components and address services as specified in an industry specific Request for Proposal (RFP).

CIS 3348. Networking Architecture and Design. 3 Credit Hours.
Examine industry standards and communications protocols in networking. Learn placement of networking devices, transmission media selection, topologies, data transmission, and structured cabling for LANs and WANs. Develop network designs as specified in an industry specific Request for Proposal (RFP). Prepare and present a design proposal in response to an RFP, and installation, configuration, testing and troubleshooting of WAN/LAN wiring interface technologies. Prerequisite(s): CIS 3347 or permission of department chair.

CIS 3351. Data Structures. 3 Credit Hours.
Study theory and applications of commonly used computer data structures, files, file organization and access methods, databases, and other storage and retrieval methods. Prerequisite(s): CIS 3340 or CIS 3341 or CIS 3342 or CIS 3343 or concurrent enrollment or permission of department chair.

CIS 3360. Ethics in Computing. 3 Credit Hours.
(WI) Examine personal and contemporary organizational ethical issues and challenges in the design, development and the use of computing technologies in a global environment. Special emphasis on the philosophical basis for computer ethics, reliability and safety of computer systems, protecting software and other intellectual property, computer crime and legal issues, and professional codes of ethics (AIS, ACM, IEEE etc.).

CIS 3361. Introduction to Computer Forensics. 3 Credit Hours.
The course focuses on clear and authoritative instructions about the field of computer forensics as it applies to the investigative process; from the collection of digital evidence to the presentation of Computer Forensic Examination findings in a court of law. Upon successful completion of the course, students will have a basic understanding of the computer forensic process, the scientific procedure involved in accounting, law enforcement, and computer sciences. Topics also include the science of computer forensics and how it relates to and is utilized within the judicial system of the United States.

CIS 3365. System Analysis and Design. 3 Credit Hours.
Examine 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. Analyze traditional and current methodologies in design, including computer aided analysis and design tools. Prerequisite(s): CIS 3330 or CIS 3331 or CIS 3332, or permission of department chair.

CIS 3387. Cooperative Education. 3 Credit Hours.
Develop and apply relevant CIS concepts in a work environment. Work in an approved professional CIS setting for approximately 300 hours before credit will be granted. To remain in the program, the student must remain in good standing with the university and employer. May be repeated once for credit. Prerequisite(s): Permission of co-op coordinator and department chair, and formal application to the program. Field experience fee $75.

CIS 3389. Special Topics in Computer Information Systems. 3 Credit Hours.
Examine selected issues, products, and technology current to computer information systems. This course may be repeated once for credit. Prerequisite(s): Varies with the topic or Permission of department chair.

CIS 4301. Database Theory and Practices. 3 Credit Hours.
Examine database concepts and structures, and understand file and data management principles underlying database construction. Learn fundamental types of database models, with emphasis on relational databases and major non-relational forms. Develop skills in analysis, design, development, and optimization of working database applications on a variety of problems. Prerequisite(s): 12 hours of CIS courses or permission of department chair.

CIS 4302. Advanced Business Analytics. 3 Credit Hours.
Follow the traditional descriptive/predictive/prescriptive framework to analyze large sets of data and explain the theory of formulating statistical models. Special emphasis on cluster analysis, Naïve Bayes, Optimization Modeling, simple and multiple linear regression, and ensemble modeling. Prerequisite(s): CIS 3302.
CIS 4303. Data Mining. 3 Credit Hours.
Discover basic concepts, tasks, methods, and techniques in data mining, and analyze data mining problems and their solutions. Develop an understanding of the data mining process, learn various techniques for data mining, and apply the techniques in solving problems using data mining tools and systems. Prerequisite(s): CIS 3302 or CIS 4301.

CIS 4307. Topics in Networking. 3 Credit Hours.
Explore selected topics in alternative or innovative network software packages, including network focused tools, utilities, and operating systems. Special emphasis on an exploration of the usefulness and operation of the topic of study. May be repeated once for credit as topics vary. Prerequisite(s): Varies with topic.

CIS 4308. Advanced Programming Language. 3 Credit Hours.
Develop programming proficiency in a modern programming language. May be repeated as topics vary. Prerequisite(s): Varies with topic or permission of department chair.

CIS 4309. Decision Support Methods. 3 Credit Hours.
Use computer-based decision, analysis, planning, and presentation methods in the context of management strategy and problem-solving policy. Apply software tools such as databases, spreadsheets, statistical graphics, and presentation programs for extracting, organizing and presenting information in support of management decision making. Prerequisite(s): COSC 1301 or CIS 3300, or ACCT 2302 or ACCT 2402 or MGMT 3301 or FIN 3301 or MKTG 3314 or BUSI 3311, or permission of department chair.

CIS 4310. Artificial Intelligence. 3 Credit Hours.
A study of AI programming techniques and tools. Topics include Expert Systems, Neural Networks, Genetic Algorithms, Automatic Programming, heuristic search, and others. Prerequisite(s): CIS 3330 or CIS 3331 or CIS 3332 or permission of department chair.

CIS 4311. Android Application Development. 3 Credit Hours.
This course explores the design and development of mobile applications such as Android, including resources, user interfaces, services, alarms, maps and location based services. Prerequisite(s): CIS 3332 or Permission of Department Chair.

CIS 4335. UNIX Systems Administration. 3 Credit Hours.
Examine the underlying conceptual considerations of the UNIX operating system and its variants in mainframe, minicomputer, server and microcomputer application environments. Explore memory and process management, multi-programming and processing, interrupt structure, and parallel processing mechanisms and procedures. Special emphasis on practical application of configuration and security of selected UNIX systems. Prerequisite(s): CIS 3305 or 12 hours of CIS courses or permission of department chair.

CIS 4341. Information Technology Security and Risk Management. 3 Credit Hours.
Examine the fundamental principles and topics of Information Technology Security and Risk Management at the organizational level. Learn critical security principles and best practices in order to plan, develop and perform security tasks. Special emphasis on hardware, software, processes, communications, applications, and policies and procedures with respect to organizational IT Security and Risk Management. Prerequisite(s): 12 hours of CIS Courses or Permission of the department chair.

CIS 4342. Computer Security Principles and Practices. 3 Credit Hours.
Explore current principles, theories, and concepts behind computer security. Examine basic methods and practices of security as it affects modern business operations. Special emphasis on cryptography, authentication, access control, database security, malware, intrusion detection, firewalls, security policy and management, software and operating system security, auditing and legal aspects of cyber security. Prerequisite(s): 12 hours of CIS courses or permission of department chair.

CIS 4343. Advanced Systems and Analysis. 3 Credit Hours.
Examine data and process decomposition, and modeling in advanced systems analysis. Study the CASE tools which support models and interaction analysis of process and data. Explore the enterprise-wide view of system analysis, and understand the theory behind and the generation of normalized relational database tables. Prerequisite(s): CIS 3365 and CIS 4301 or permission of department chair.

CIS 4344. Network and Systems Security. 3 Credit 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 and networks. Areas covered include information and message security, database and file integrity, physical security, security management, security risk analysis, and encryption/cryptography. Will include practical laboratories in the analysis, and configuration of networking security protocols and tools. Prerequisites: CIS 3347 or approval of Department Chair. Lab fees: $95.

CIS 4346. Applied Security. 3 Credit Hours.
This course will validate and develop in-depth hands on knowledge about the operation and defense from malicious attacks. It builds on previous course work to understand rapid recovery and defense of systems from attack. Students develop knowledge about system vulnerabilities and the process of penetration of systems as a way to evaluate the security of systems. Specific topics include social engineering, malware and malicious software usage and identification, network security tool familiarization and system hardening. Prerequisite(s): CIS 3347 and (CIS 4341 or CIS 4342) or approval of department chair. Lab Fee: $95.
CIS 4348. Security Trends and Malware Analysis. 3 Credit Hours.
This course analyzes and investigates security threats and ethical hacking methods. It will introduce students to modern malware analysis techniques through a detailed examination of malware, virus, and malicious code operation by examining case studies and hands-on interactive analysis of real world samples. The course will also examine in detail current trends in the threat environment and the most current attack exploits. Student will use a variety of methods to investigate current security threats and their mitigation. Topics include malware morphology, disassembly of malware, ethical hacking methods on systems including penetration, and trends in the threat-scape. Prerequisite(s): CIS 4345 or CIS 4346 or approval of department chair. Lab fees $95.

CIS 4350. Management Information Systems. 3 Credit Hours.
Study management issues related to business information systems designed to meet the informational needs of the various business subsystems. Special emphasis on the concepts of systems development, security, privacy and ethics associated with information systems.

CIS 4351. IS Project Management. 3 Credit Hours.
This course studies the processes, methods, techniques and tools that organizations use to manage their information systems projects. The course covers a systematic methodology for initiating, planning, executing, controlling, and closing projects. This course assumes that project management in the modern organization is a complex team based activity, where various types of technologies (including project management software as well as software to support group collaboration) are an inherent part of the project management process. This course also acknowledges that project management involves both the use of resources from within the firm, as well as contracted from outside the organization. Prerequisite: Senior standing or approval of department chair.

CIS 4352. Structured Query Language. 3 Credit Hours.
Study relational database schema, formulating queries and sub-queries of varying complexity, embedding query statements in a “host” language, and defining and querying data views. Prerequisite(s): CIS 4301 or permission of department chair.

CIS 4360. Strategic Information Systems. 3 Credit Hours.
(WI) This course will explore necessary management actions, which will ensure that information is available, correct, manipulatable, protected, and archived in proper forms to allow for a strategic use of information systems in the enterprise. Throughout this course we will review a set of conceptual frameworks of IT management, and by developing a critical view of two levels of IT management -- strategic and tactical. We will address the value/importance of IT from strategic and tactical perspectives, and the IT management challenges of managing people, processes and technology. Prerequisite(s): Senior Standing or CIS 4350 or Permission of Department Chair.

CIS 4375. Professional Senior Seminar. 3 Credit Hours.
Participate in professional organizations, current events, research and presentations, job market analysis, interviewing, and resume preparation, in order to prepare for the professional certification exam. Prerequisite(s): 24 hours of CIS courses.

CIS 4376. Network Administration. 3 Credit Hours.
Study communications architectures, protocols, and interfaces as related to network operating systems. Examine communications networking techniques, such as DHCP and DNS server configuration and internet working. Examine industry standards in networking. Special emphasis on installation, configuration, client handling, basic security, and troubleshooting of a network operating system. Use a modern network operating system in order to gain experience in configuration and administration of a network. Lab fee $95. Prerequisite(s): CIS 3347 or permission of department chair.

CIS 4378. Comprehensive Networking. 3 Credit Hours.
A course requiring the student to learn details of various networking protocols and engage in analyzing and designing various computer network applications. Specifically, the course will focus on the OSI and TCP/IP networking protocols, including subnetting of IP address, local area networking (LAN), wide area networking (WAN) and network analysis. This course includes hands-on exercises on various networking layer messages on live web traffic and explore them to understand overall networking process. Lab fees: $95. Prerequisite(s): CIS 3347 or permission of department chair.

CIS 4379. Software Engineering for E-Business. 3 Credit Hours.
(WI) 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. Students study a software life-cycle model, fundamental software engineering principles, and documentation standards in detail. An E-Business team project is required, which emphasizes the production of high quality software for medium and larger scale projects. Prerequisite(s): (CIS 3340 or CIS 3341 or CIS 3342) and senior standing.

CIS 4380. Software Engineering. 3 Credit Hours.
Examine the production of high quality software for medium and larger scale projects. Explore theoretical software engineering research as the basis for a practical approach to developing quality software. Special emphasis on the software life-cycle model, fundamental software engineering principles, and documentation standards in detail. Prerequisite(s): CIS 3340 or CIS 3341 or CIS 3342 or CIS 3343 and senior standing.

CIS 4384. Internship in Computer Information Systems. 3 Credit Hours.
Gain practical work experience as a programmer/programmer analyst. Apply the principles, concepts, and skills learned during the first three years of collegiate training to the field of computer information systems. May be repeated for credit. Prerequisite(s): Permission of internship coordinator or department chair. Field experience fee $75.

CIS 4388. Computer Information Systems Problems. 1-3 Credit Hours.
Explore selected topics in business on technical computer applications, practicum, field project, or other suitable computer studies. Prerequisite(s): Varies with topic or Permission of department chair.

CIS 5090. Computer Information Systems Comprehensive Examination. 0 Credit Hours.
Prepare for and take the CIS comprehensive exam. Students should take this exam in their last semester, their second to last semester, or when all the core classes have been taken. Students taking the thesis option do not need to take this exam.
CIS 5302. Object Oriented Programming. 3 Credit Hours.
This course covers the concepts of object-oriented approach to software design and development. It includes a detailed discussion of programming concepts starting with the fundamentals of data types, control structures, arrays, classes and proceeding to advanced topics such as inheritance and polymorphism, creating user interfaces, and exceptions. Upon completion of this course the students will be able to design and implement applications.

CIS 5304. Data Communications for Managers. 3 Credit Hours.
Examine 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. Upon completion of this course, the students will be able to evaluate, select, and implement different data network options.

CIS 5307. Advanced Systems Analysis and Design. 3 Credit Hours.
Examine system analysis and design processes. Students will be introduced to comparative development methodologies and modeling tools including project management and cost-benefit analysis; information systems planning and project identification and selection; requirements collection and structuring; process modeling; conceptual and logical data modeling; database design and implementation; design of the human-computer interface; system implementation; system maintenance and change management.

CIS 5311. Management Information Systems. 3 Credit Hours.
Study the management and use of information and technology as a resource to create competitive organizations, manage global operations, provide useful products and quality services. Examine intellectual property, privacy, organizational and societal impact, legal issues, ethics, security issues, decision making, strategic information systems, and organizational support systems.

CIS 5312. Technology Support Management Operations. 3 Credit Hours.
Study issues of organizing and staffing a technical support help desk. Explore the numerous management techniques and operational concepts that businesses and governmental organizations use to manage successful technical support activities. Survey the wide array of commercially available technical support software, and work with the public to deliver technical support in an operational environment.

CIS 5316. Advanced Database Management. 3 Credit Hours.
Examine the methodologies of database management including data models, database design, normalization, SQL/PLSQL, NoSQL, performance and reliability, distributed database, data dictionaries, data integrity, security, and privacy.

CIS 5318. Quantitative Concepts. 3 Credit Hours.
Examine and apply measurement techniques to information technology related problems. Use a statistical program to analyze data, and perform analyses of programs and selected algorithms.

CIS 5319. Business Intelligence Systems. 3 Credit Hours.
Examine the fundamentals of Business Intelligence including concepts, techniques and applications. Special emphasis on Decision Support Systems and other collaborative systems, Data Management, Data Mining, Data Visualization, Expert Systems and Intelligent Systems.

CIS 5320. Information Systems Seminar. 3 Credit Hours.
Explore selected topics in information systems. Topics will vary. May be repeated once for credit as topics vary.

CIS 5325. Unified Modeling Language. 3 Credit Hours.
This course covers Systems Development Life Cycle using the Unified Modeling Language (UML) in an object-oriented software system environment. Topics include modeling the elements, structure, and behaviors of object-oriented software systems using UML. Upon completion of this course, students will be able to use UML to identify objects and classes, capture requirements and define use cases, to extend and enhance visual models, and model the details of object behavior with activity and state-chart diagrams.

CIS 5344. Scripting Languages for Web Design. 3 Credit Hours.
This course is a study of Web Scripting languages and will cover many aspects of creating dynamic Web Sites using server-side and client-side scripting. It will also delve into interactions between Web Sites and a database.

CIS 5345. Extensible Markup Language. 3 Credit Hours.
Study well-formed XML and validated XML documents and the language facilities for working with hierarchical data. Describe and transform XML data to an external presentation using real world problems.

CIS 5349. Topics in Programming. 3 Credit Hours.
Develop programming proficiency in a modern programming language. Undertake multiple programming assignments to achieve necessary knowledge and skills. May be repeated once for credit as topics vary. Prerequisite(s): Varies with Topic.

CIS 5351. Information Technology Project Management. 3 Credit Hours.
Study the concepts and practices of project management and its importance to improving the success of information technology projects. Utilize project management concepts and techniques within group projects, as a project manager or active team member. Topics include techniques for planning, organizing, scheduling, and controlling information systems projects.

CIS 5353. Big Data Analytics and Management. 3 Credit Hours.
Study fundamental concepts and principles of Big Data Analytics and its role in supporting/enhancing organizational decision making and predictions. Special emphasis on Big Data, trends, challenges and applications, analytic methods, tools, technologies, infrastructure and strategies for Big Data Management, data Privacy and Ethics. Prerequisite(s): CIS 5311 or permission of department chair.

CIS 5354. Advanced Methods in Big Data Analytics. 3 Credit Hours.
Study advanced concepts and principles of Big Data Analytics and its role in supporting/enhancing organizational decision making and predictions. Special emphasis on NoSQL Databases, Hadoop Ecosystem, MapReduce, Pig, Hive, Natural Language Processing, Social Network Analysis, and Data Visualization. Prerequisite(s): CIS 5353, Java Programming or permission of department chair.

CIS 5356. Web Development. 3 Credit Hours.
Examine theory and application of the multimedia application development process. Develop the web-based authoring and scripting tools, to use in the creation of various types of web-based projects. Special emphasis on the planning, design, projection, and evaluation of interactive web-based projects for delivery through a variety of media.

CIS 5370. Foundations of Information Security. 3 Credit Hours.
CISC 5376. Network Administration and Design. 3 Credit Hours.
This course explores network design, installation planning, and preparation. Topics include installing network operating system; establishing network security and services; exploring network administration, network utilities, maintenance techniques; monitoring performance; troubleshooting and configuring the network.

CISC 5380. E-Business Application Development. 3 Credit Hours.
This course provides an in-depth knowledge of systematic approach to analyze digital markets. Upon completion of this course, students will be able to design and implement an e-business project integrating database, and scripting languages. Prerequisite: CISC 5316 or perm of Chair.

CISC 5381. Research Project with Laboratory. 3 Credit Hours.
Engage in independent study in selected topics in Information Systems. May be repeated for credit once when topics change. Prerequisite(s): Varies with topic.

CISC 5382. Research Methods in Computer Information Systems. 3 Credit Hours.
This course provides an overview of research problems and techniques in information systems. Upon completion of this course, students will be able to formulate a research question; conduct a literature survey; select appropriate research methods to answer their research questions; collect and analyze data.

CISC 5384. Computer Information Systems Internship. 3 Credit Hours.
Engage in a supervised professional experience in an information technology-related position with a public or private organization. May be repeated for a total of 6 hours credit. Prerequisite(s): 6 semester hours of CISC courses or equivalent and permission of internship coordinator or department chair. Field experience fee $75.

CISC 5388. Computer Information Systems Problems. 1-3 Credit Hours.
Study selected topics in CISC 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(s): Varies with topic.

CISC 5389. Special Topics in Computer Information Systems. 3 Credit Hours.
Study selected current topics in computer information systems. May be repeated once for credit as topics vary. Prerequisite(s): Varies with topic.

CISC 5398. Computer Information Systems Thesis. 1-6 Credit Hours.
Prepare and write the information systems thesis. Scheduled when the student is ready to begin the thesis. No credit until the thesis is accepted. Prerequisite(s): CISC 5382, 18-hours.

Computer Science Courses

COSC 1301. Introduction to Computing. 3 Credit Hours.
Overview of computer systems—hardware, operating systems, the Internet, and application software including word processing, spreadsheets, presentation graphics, and databases. Current topics such as the effect of computers on society, and the history and use of computers in business, educational, and other interdisciplinary settings are also studied. This course is not intended to count toward a student’s major field of study in business or computer science.

COSC 1309. Programming Logic & Design. 3 Credit Hours.
A discipline approach to problem-solving with structured techniques and representation of algorithms using pseudo code and graphical tools. Discussion of methods for testing, evaluation, and documentation.

COSC 1315. Fundamentals of Programming. 3 Credit Hours.
Introduction to computer programming for solving a variety of problems. This course is intended for non-computer science and non-computer engineering majors. Emphasis on the fundamentals of design, development, testing, implementation, and documentation of computer programs. Includes problem solving with structured techniques and algorithms using pseudo code and/or graphical representations.

COSC 1320. C Programming I. 3 Credit Hours.
Introduces the fundamental concepts of structured programming in the C language. Topics include data types; control structures; functions, structures, arrays, pointers, pointer arithmetic, unions, and files; the mechanics of running, testing, and debugging programs; introduction to programming; and introduction to the historical and social context of computing.

COSC 1336. Programming Fundamentals I. 3 Credit 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.

COSC 1337. Programming Fundamentals II. 3 Credit Hours.
This course focuses on the object-oriented programming paradigm, emphasizing the definition and use of classes along with fundamentals of object-oriented design. The course includes basic analysis of algorithms, searching and sorting techniques, and an introduction to software engineering processes. Students will apply techniques for testing and debugging software.

COSC 1436. Programming Fundamentals. 4 Credit 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. (This course is included in the Field of Study Curriculum for Computer Science.)

COSC 1437. Programming Fundamentals II. 4 Credit Hours.
This course focuses on the object-oriented programming paradigm, emphasizing the definition and use of classes along with fundamentals of object-oriented design. The course includes basic analysis of algorithms, searching and sorting techniques, and an introduction to software engineering processes. Students will apply techniques for testing and debugging software. (This course is included in the Field of Study Curriculum for Computer Science.)

COSC 2325. Computer Organization. 3 Credit Hours.
The organization of computer systems is introduced using assembly language. Topics include basic concepts of computer architecture and organization, memory hierarchy, data types, computer arithmetic, control structures, interrupt handling, instruction sets, performance metrics, and the mechanics of testing and debugging computer systems. Embedded systems and device interfacing are introduced. Prerequisite(s): COSC 1336 or COSC 1436.
COSC 2425. Computer Organization. 4 Credit Hours.
The organization of computer systems is introduced using assembly language. Topics include basic concepts of computer architecture and organization, memory hierarchy, data types, computer arithmetic, control structures, interrupt handling, instruction sets, performance metrics, and the mechanics of testing and debugging computer systems. Embedded systems and device interfaacing are introduced. Prerequisite(s): COSC 1336 or COSC 1436.

COSC 2436. Programming Fundamentals III. 4 Credit Hours.
Further applications of programming techniques, introducing the fundamental concepts of data structures and algorithms. Topics include data structures (including stacks, queues, linked lists, hash tables, trees, and graphs), searching, sorting, recursion, and algorithmic analysis. Programs will be implemented in an appropriate object oriented language. (This course is included in the Field of Study Curriculum for Computer Science.) Prerequisite(s): COSC 1337 or COSC 1437.

COSC 3304. Topics in Computer Science. 3 Credit Hours.
Explore selected topics in computer systems including programming languages, programming techniques, or other specialized topics. May be repeated once for credit as topics vary. Prerequisite(s): Varies with topic or permission of department chair.

COSC 3320. Introduction to Software Engineering. 3 Credit Hours.
Study object-oriented software development process, requirements analysis, software design concepts and methodologies, object-oriented programming, and debugging. Prerequisite(s): COSC 2436 or permission of department chair.

COSC 3343. Computer Architecture. 3 Credit Hours.
Hardware and software structures found in modern digital computers. Instruction set architecture, hardwired design of the processor, assembly language programming, microprogramming, I/O and memory units, analysis of instruction usage, and hardware complexity. Prerequisite(s): COSC 2436 or CIS 3332 or CIS 3333 or permission of department chair.

COSC 3344. Computer Organization and Systems Programming. 3 Credit Hours.
A course requiring the student to learn the details of various networking protocols and engage in analyzing and designing various computer network applications. Specifically, the course will focus on the OSI and TCP/IP networking protocols, including subnetting of IP address, local area networking (LAN), wide area networking (WAN) and network analysis. This course includes hands-on exercises on various networking layer messages on live web traffic and explores them to understand overall networking process. Lab fees: $59. Prerequisite(s): COSC 3347 or (COSC 2436 and MATH 2414) or permission of department chair.

COSC 3340. Analysis of Algorithms. 3 Credit Hours.
Study modern computer algorithms with emphasis on how to select the best algorithm for a task considering the specific computing environment. Examine searching and sorting algorithms for their importance in computing. Special emphasis on efficiency, maintainability, advanced design and analysis techniques, advanced data structures, and graph algorithms. Prerequisite(s): COSC 3351 or concurrent enrollment or permission of department chair.

COSC 4301. Database Theory and Practices. 3 Credit Hours.
Examine database concepts and structures. Learn the file and data management principles underlying database construction. Explore fundamental types of database models, with emphasis on relational databases as well as on major non-relational forms. Gain experience in analysis, design, development, and optimization of working database applications on a variety of problems. Special emphasis on small and large system databases. Credit for both CIS 4301 and COSC 4301 will not be awarded. Prerequisite(s): 6 hours of computer science courses or permission of department chair.

COSC 4310. Artificial Intelligence. 3 Credit Hours.
A study of AI programming techniques and tools. Topics include Expert Systems, Neural Networks, Genetic Algorithms, Automatic Programming, heuristic search, and others. Prerequisite(s): CIS 3331 or CIS 3332 or CIS 3333 or permission of department chair.

COSC 4311. Android Application Development. 3 Credit Hours.
This course explores the design and development of mobile applications such as Android, including resources, user interfaces, services, alarms, maps and location based services. Prerequisite(s): CIS 3332 or permission of department chair.

COSC 4340. Analysis of Algorithms. 3 Credit Hours.
Study modern computer algorithms with emphasis on how to select the best algorithm for a task considering the specific computing environment. Examine searching and sorting algorithms for their importance in computing. Special emphasis on efficiency, maintainability, advanced design and analysis techniques, advanced data structures, and graph algorithms. Prerequisite(s): COSC 3351 or concurrent enrollment or permission of department chair.

COSC 4341. Information Technology Security and Risk Management. 3 Credit Hours.
Examine the realm of information assurance and security. Study the fundamental principles, concepts, and common body knowledge of information security. Explore telecommunication and network security, software development and physical security, cryptography, security architecture, operations security, business continuity and disaster recovery planning. Understand the legal and ethical issues in technology security, and risk management.

COSC 4378. Computer Networks. 3 Credit Hours.
A course requiring the student to learn the details of various networking protocols and engage in analyzing and designing various computer network applications. Specifically, the course will focus on the OSI and TCP/IP networking protocols, including subnetting of IP address, local area networking (LAN), wide area networking (WAN) and network analysis. This course includes hands-on exercises on various networking layer messages on live web traffic and explores them to understand overall networking process. Lab fees: $59. Prerequisite(s): COSC 3347 or (COSC 2436 and MATH 2414) or permission of department chair.

COSC 4379. Software Engineering for E-Business. 3 Credit 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. Students study a software life-cycle model, fundamental software engineering principles, and documentation standards in detail. An E-Business team project is required, which emphasizes the production of high quality software for medium and larger scale projects. Prerequisite(s): (CIS 3340 or CIS 3341 or CIS 3342) and senior standing.
COSC 4388. Computer Science Problems. 1-4 Credit Hours.
Explore selected topics in computer science. May be repeated with
the permission of the department chair for additional credit when fewer
than four credits have been earned. Prerequisite(s): 9 hours of COSC.

COSC 4389. Special Topics in Computer Science. 3 Credit Hours.
(WI) Explore selected topics in computer science, such as artificial
intelligence, security, robotics, and human-computer interaction. May be
repeated for additional credit with permission of the department chair.
Prerequisite(s): 9 hours of COSC.

B.S. Computer Science

OVERVIEW
The Bachelor of Science in Computer Science program places an
emphasis on the theoretical and mathematical foundations of
computing. The program is designed to develop students' problem-
solving and programming skills. Students are exposed to computer
operating systems, programming, computer networking, computer
architecture, database design, and additional program topics.

Our Computer Science graduates work within almost every field that you
can imagine, from medical to design, from nonprofit government to large
corporations. Computer science graduates will likely enter rewarding
careers with competitive salaries.

Program Student Learning Outcomes
The student will be able to:
1. Communicate effectively on technical and non-technical subjects in
   computer information systems.
2. Analyze situations and design appropriate algorithm solutions.
3. Identify and evaluate Information Systems solutions for business
   situations and select ethical and optimal solutions to meet the
   organization's needs.
4. Apply theories, terms, and skills in order to address complex software
   development problems.
5. Apply general knowledge and skills related to IT security and risk
   management computer science.
6. Demonstrate knowledge of current technology in computer science.

Bachelor of Science - Computer Science Program Requirements
Refer to the General Education Core Requirements (p. 28) page for more
information on the CORE REQ coursework. The Field of Study (FOS)
courses are listed in the footnotes (if applicable). At least 120 credit
hours are required for the degree.

The program listed is a general guideline for semester coursework, speak
with a college advisor for an individualized student education plan.

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<td>or CIS 3343 C# Programming for Windows and the Web</td>
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<td>COSC 3351 Data Structures</td>
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</table>
COSC 1436. Programming Fundamentals. 4 Credit 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. (This course is included in the Field of Study Curriculum for Computer Science.).

COSC 1437. Programming Fundamentals II. 4 Credit Hours.
This course focuses on the object-oriented programming paradigm, emphasizing the definition and use of classes along with fundamentals of object-oriented design. The course includes basic analysis of algorithms, searching and sorting techniques, and an introduction to software engineering processes. Students will apply techniques for testing and debugging software.

COSC 1325. Computer Organization. 3 Credit Hours.
The organization of computer systems is introduced using assembly language. Topics include basic concepts of computer architecture and organization, memory hierarchy, data types, computer arithmetic, control structures, interrupt handling, instruction sets, performance metrics, and the mechanics of testing and debugging computer systems. Embedded systems and device interfacing are introduced. Prerequisite(s): COSC 1336 or COSC 1436.

COSC 2425. Computer Organization. 4 Credit Hours.
The organization of computer systems is introduced using assembly language. Topics include basic concepts of computer architecture and organization, memory hierarchy, data types, computer arithmetic, control structures, interrupt handling, instruction sets, performance metrics, and the mechanics of testing and debugging computer systems. Embedded systems and device interfacing are introduced. Prerequisite(s): COSC 1336 or COSC 1436.

COSC 2436. Programming Fundamentals III. 4 Credit Hours.
Further applications of programming techniques, introducing the fundamental concepts of data structures and algorithms. Topics include data structures (including stacks, queues, linked lists, hash tables, trees, and graphs), searching, sorting, recursion, and algorithmic analysis. Programs will be implemented in an appropriate object oriented language. (This course is included in the Field of Study Curriculum for Computer Science.) Prerequisite(s): COSC 1337 or COSC 1437.

COSC 3304. Topics in Computer Science. 3 Credit Hours.
Explore selected topics in computer systems including programming languages, programming techniques, or other specialized topics. May be repeated once for credit as topics vary. Prerequisite(s): Varies with topic or permission of department chair.

COSC 3320. Introduction to Software Engineering. 3 Credit Hours.
Study object-oriented software development process, requirements analysis, software design concepts and methodologies, object-oriented programming, and debugging. Prerequisite(s): COSC 2436 or permission of department chair.
COSC 3343. Computer Architecture. 3 Credit Hours.
Hardware and software structures found in modern digital computers. Instruction set architecture, hardwired design of the processor, assembly language programming, microprogramming, I/O and memory units, analysis of instruction usage, and hardware complexity. Prerequisite(s): COSC 2436 or CIS 3332 or CIS 3333 or permission of department chair.

COSC 3351. Data Structures. 3 Credit Hours.
Examine theory and application of commonly used computer data structures, files, file organization and access methods, databases, and other storage and retrieval methods. Prerequisite(s): A programming course in C/C++, Visual Basic, Java, or permission of department chair.

COSC 3360. Ethics in Computing. 3 Credit Hours.
(WI) Examine personal and contemporary organizational ethical issues and challenges in the design, development and use of computing technologies in a global environment. Special emphasis on philosophical basis for computer ethics, reliability and safety of computer systems, protecting software and other intellectual property, computer crime and legal issues, and professional codes of ethics such as AIS, ACM, IEEE.

COSC 3380. Operating Systems. 3 Credit Hours.
Examine the design and development of operating systems. Analyze current system software technology, including process management, memory organization, security, and file systems. Prerequisite(s): COSC 2436 or CIS 3330 or CIS 3331 or CIS 3332 or permission of department chair.

COSC 4301. Database Theory and Practices. 3 Credit Hours.
Examine database concepts and structures. Learn the file and data management principles underlying database construction. Explore fundamental types of database models, with emphasis on relational databases as well as on major non-relational forms. Gain experience in analysis, design, development, and optimization of working database applications on a variety of problems. Special emphasis on small and large system databases. Credit for both CIS 4301 and COSC 4301 will not be awarded. Prerequisite(s): 6 hours of computer science courses or permission of department chair.

COSC 4310. Artificial Intelligence. 3 Credit Hours.
A study of AI programming techniques and tools. Topics include Expert Systems, Neural Networks, Genetic Algorithms, Automatic Programming, heuristic search, and others. Prerequisite(s): CIS 3331 or CIS 3332 or CIS 3333 or permission of department chair.

COSC 4311. Android Application Development. 3 Credit Hours.
This course explores the design and development of mobile applications such as Android, including resources, user interfaces, services, alarms, maps and location based services. Prerequisite(s): CIS 3332 or permission of department chair.

COSC 4340. Analysis of Algorithms. 3 Credit Hours.
Study modern computer algorithms with emphasis on how to select the best algorithm for a task considering the specific computing environment. Examine searching and sorting algorithms for their importance in computing. Special emphasis on efficiency, readability, maintainability, advanced design and analysis techniques, advanced data structures, and graph algorithms. Prerequisite(s): COSC 3351 or concurrent enrollment or permission of department chair.

COSC 4341. Information Technology Security and Risk Management. 3 Credit Hours.
Examine the realm of information assurance and security. Study the fundamental principles, concepts, and common body knowledge of information security. Explore telecommunication and network security, software development and physical security, cryptography, security architecture, operations security, business continuity and disaster recovery planning. Understand the legal and ethical issues in technology security, and risk management.

COSC 4378. Computer Networks. 3 Credit Hours.
A course requiring the student to learn the details of various networking protocols and engage in analyzing and designing various computer network applications. Specifically, the course will focus on the OSI and TCP/IP networking protocols, including subnetting of IP address, local area networking (LAN), wide area networking (WAN) and network analysis. This course includes hands-on exercises on various networking layer messages on live web traffic and explores them to understand overall networking process. Lab fees: $95. Prerequisite(s): CIS 3347 or (COSC 2436 and MATH 2414) or permission of department chair.

COSC 4379. Software Engineering for E-Business. 3 Credit Hours.
(WI) 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. Students study a software life-cycle model, fundamental software engineering principles, and documentation standards in detail. An E-Business team project is required, which emphasizes the production of high quality software for medium and larger scale projects. Prerequisite(s): (CIS 3340 or CIS 3341 or CIS 3342) and senior standing.

COSC 4388. Computer Science Problems. 1-4 Credit Hours.
Explore selected topics in computer science. May be repeated with the permission of the department chair for additional credit when fewer than four credits have been earned. Prerequisite(s): 9 hours of COSC.

COSC 4389. Special Topics in Computer Science. 3 Credit Hours.
(WI) Explore selected topics in computer science, such as artificial intelligence, security, robotics, and human-computer interaction. May be repeated for additional credit with permission of the department chair. Prerequisite(s): 9 hours of COSC.

B.S. Education

OVERVIEW

Passage of House Bill 3217, 86th Texas Legislature, allows for the bachelor’s degree in Interdisciplinary Studies to transition to a bachelor’s degree in Education. A&M-Central Texas has applied for this change for fall 2020 implementation, and is pending approval by the Texas Higher Education Coordinating Board at the time of publication.

Teacher Education, one of the major programs at A&M-Central Texas, 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 employment in Texas and the nation. The goal of the 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.
11. Are committed to continued professional growth and development.

Program Level Student Learning Outcomes
The student will be able to:
1. Achieve the necessary knowledge and skills to earn teacher certification in Texas.
2. Be employable as educators in Texas.
3. Demonstrate an understanding of the disciplines studied to earn a baccalaureate degree.
4. Communicate effectively both in writing and speaking.

Students are highly encouraged to speak with an academic advisor prior to Block I for an individual educational plan. Faculty Advisors will inform students of the application criteria required for the program entry into Block I.

Program faculty advisement is required prior to enrolling in Block I.

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<tr>
<td>TECA 1354</td>
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<tr>
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Bachelor of Science Education - Elementary
Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan. This program may require summer coursework.

Please note the following courses require a grade of 'C' or better: 12 credit hours of English, College Algebra, and approved Educational Psychology course and completion of 15 credit hours in the certification subject area.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan. This program may require summer coursework.

Please note the following courses require a grade of 'C' or better: 12 credit hours of English, College Algebra, and approved Educational Psychology course and completion of 15 credit hours in the certification subject area.
Texas A&M University Central Texas 2020-2021

DEG REQ Sophomore Literature 3
CORE REQ Creative Arts (050) HUMA 1315 recommended
EDUC 2301 Introduction to Special Populations (DEG REQ) 3
or TECA 1303 Families, School, & Community
or ECON 2301 Principles of Macroeconomics
or GEOG 1303 World Regional Geography

Third Year - Approval Required

Fall - Block I
EDUC 3310 Theories of Learning 3
EDUC 3420 Instructional Planning and Delivery 4
EDUC 3430 The Learner and the Learning Environment 4
READ 3310 Foundations of Literacy 3
Spring - Block II
READ 3311 Literacy Development I 3
EDUC 3325 Fundamentals of Bilingual and English as a Second Language Education 3
MATH 4305 Concepts of Elem Math III 3
EDUC 3370 Instructional Strategies 3
SPED 3361 Survey Exceptional Learners 3
HIST 1301 United States History I (CORE REQ (060) 3
or HIST 2311 Western Civilization I (DEG REQ) 3
or HIST 2312 Western Civilization II
Spring
ENGL 1301 Composition I (CORE REQ (010) 3
MATH 1314 College Algebra (CORE REQ (020) 3
CORE REQ Life and Physical Sciences (030) 4
EDUC 1301 Introduction to the Teaching Profession (DEG REQ) 3
TECA 1354 Child Growth & Development (CORE REQ (080) 3
or PSYC 2308 Child Psychology
or PSYC 2301 General Psychology
or PSYC 3303 Educational Psychology

Fourth Year - Admission to Teacher Education Required

Fall - Block III
READ 4312 Literacy Development II 3
READ 4313 Analysis and Response 3
EDUC 4345 Mathematics & Science Methods in the Elementary Classroom 3
EDUC 4320 Integrated Social Studies Methods, EC-8 3
EDUC 4484 Field Experience 4
Spring - Block IV
EDUC 4335 Capstone for Educators 3
EDUC 4691 Clinical Teaching 6
Total Credit Hours 120

1 These courses may be taken during the summer.

Bachelor of Science Education - Middle School English Language Arts, Reading, Social Studies

Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework; speak with a college advisor for an individualized student education plan. This program may require summer coursework.

Please note the following courses require a grade of ‘C’ or better: 12 credit hours of English, College Algebra, and approved Educational Psychology course and completion of 15 credit hours in the certification subject area.

Program faculty advisement is required prior to enrolling in Block I.

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Second Year

Fall

PHYS 1405| Elementary Physics I (Lecture + Lab) (CORE REQ (030) | 4            |
| or PHYS 1415 | Physical Science I (Lecture + Lab)                    |              |
| CORE REQ Sophomore Literature (040)                   | 3            |
| GOVT 2305| Federal Government (CORE REQ (070)                    | 3            |
| HIST 1302| United States History II (CORE REQ (060)              | 3            |
| HIST 2311| Western Civilization I (DEG REQ)                      | 3            |
| or HIST 2312 | Western Civilization II                               |              |
| Spring
| GOVT 2306| Texas Government (CORE REQ (070)                      | 3            |
| GEOG 1303| World Regional Geography (DEG REQ)                    | 3            |
| HIST 2301| Texas History (DEG REQ)                               | 3            |
| or HIST 3322 | History of Texas                                      |              |
CORE REQ Creative Arts (050) HUMA 1315 recommended

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>ECON 2301</td>
<td>Principles of Macroeconomics (DEG REQ)</td>
<td>3</td>
</tr>
<tr>
<td>or ECON 2302</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
</tbody>
</table>

**Third Year - Approval Required**

**Fall - Block I**

- EDUC 3310: Theories of Learning 3
- EDUC 3420: Instructional Planning and Delivery 4
- EDUC 3430: The Learner and the Learning Environment 4
- READ 3310: Foundations of Literacy 3
- ENGL 3350: Children's Literature 3
  or ENGL 3306: Readings in Adolescent Lit

**Spring - Block II**

- ENGL 3330: Advanced Composition (or Sophomore Literature) 3
- ENGL 3320: Advanced Grammars 3
- READ 3311: Literacy Development I 3
- EDUC 3325: Fundamentals of Bilingual and English as a Second Language Education 3
- EDUC 3370: Instructional Strategies 3

**Fourth Year - Admission to Teacher Education Required**

**Fall - Block III**

- READ 4312: Literacy Development II 3
- READ 4313: Analysis and Response 3
- EDUC 4320: Integrated Social Studies Methods, EC-8 3
- SPED 3361: Survey Exceptional Learners 3
- EDUC 4484: Field Experience 4

**Spring - Block IV**

- EDUC 4335: Capstone for Educators 3
- EDUC 4691: Clinical Teaching 6

**Total Credit Hours**: 120

**Bachelor of Science Education - Middle School Mathematics**

Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan. This program may require summer coursework.

Please note the following courses require a grade of 'C' or better: 12 credit hours of English, College Algebra, and approved Educational Psychology course and completion of 15 credit hours in the certification subject area.

Program faculty advisement is required prior to enrolling in Block I.
MATH 4304L Survey of Mathematical Ideas Lab 1

Spring - Block II

MATH 3311 Probability & Statistics I 3
MATH 3370 An Introduction to Linear Programming 3
EDUC 3325 Fundamentals of Bilingual and English as a Second Language Education 3
MATH 4305 Concepts of Elem Math III 3
READ 3335 Content Area Reading 1 3
MATH 4302 College Geometry 1 3

Fourth Year - Admission to Teacher Education Required

Fall - Block III
EDUC 3370 Instructional Strategies 3
MATH 3315 Mathematics & Technology 3
SPED 3361 Survey Exceptional Learners 3
EDUC 4484 Field Experience 4

Spring - Block IV
EDUC 4335 Capstone for Educators 3
EDUC 4691 Clinical Teaching 6

Total Credit Hours 120

1 These courses may be taken during the summer.

Bachelor of Science Education - All Level Special Education

Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan. This program may require summer coursework.

Please note the following courses require a grade of ‘C’ or better: 12 credit hours of English, College Algebra, and approved Educational Psychology course and completion of 15 credit hours in the certification subject area, Program faculty advisement is required prior to enrolling in Block I.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
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<tbody>
<tr>
<td>ENGL 1301</td>
<td>Composition I (CORE REQ (010)</td>
<td>3</td>
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<tr>
<td>MATH 1314</td>
<td>College Algebra (CORE REQ (020)</td>
<td>3</td>
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<td>CORE REQ Life and Physical Sciences (030)</td>
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<tr>
<td>EDUC 1301</td>
<td>Introduction to the Teaching Profession (DEG REQ)</td>
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<tr>
<td>TECA 1354</td>
<td>Child Growth &amp; Development (CORE REQ (080)</td>
<td>3</td>
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<tr>
<td>or PSYC 2308</td>
<td>Child Psychology</td>
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<tr>
<td>or PSYC 2301</td>
<td>General Psychology</td>
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</tr>
<tr>
<td>or PSYC 3303</td>
<td>Educational Psychology</td>
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</tr>
</tbody>
</table>

Spring

ENGL 1302 Composition II (CORE REQ (010) 3
SPCH 1315 Public Speaking (DEG REQ) 3
or SPCH 1311 Introduction to Speech Communication
or SPCH 1318 Interpersonal Communication
or SPCH 1321 Business & Professional Communication
HIST 1301 United States History I (CORE REQ (060) 3
DEG REQ Biology Elective (090) 4
MATH 1350 Mathematics for Teachers I (DEG REQ) 3
or MATH 3303 Concepts of Elementary Math I

Second Year

Fall

PHYS 1405 Elementary Physics I (Lecture + Lab) (CORE REQ (030) 4
or PHYS 1415 Physical Science I (Lecture + Lab) 4
CORE REQ Sophomore Literature (040) 3
GOVT 2305 Federal Government (CORE REQ (070) 3
HIST 1302 United States History II (CORE REQ (060) 3
MATH 1351 Mathematics for Teachers II (DEG REQ) 3
or MATH 3305 Concepts of Elementary Math II

Spring

GOVT 2306 Texas Government (CORE REQ (070) 3
DEG REQ Sophomore Literature 3
CORE REQ Creative Arts (050) HUMA 1315 recommended 3
EDUC 2301 Introduction to Special Populations (DEG REQ) 3
or TECA 1303 Families, School, & Community
or ECON 2301 Principles of Macroeconomics
or GEOG 1303 World Regional Geography

Third Year - Approval Required

Fall - Block I
EDUC 3420 Instructional Planning and Delivery 4
EDUC 3430 The Learner and the Learning Environment 4
READ 3310 Foundations of Literacy 3
SPED 3361 Survey Exceptional Learners 3

Spring - Block II
READ 3311 Literacy Development I 3
EDUC 3325 Fundamentals of Bilingual and English as a Second Language Education 3
EDUC 3370 Instructional Strategies 3
EDUC 3372 Teaching Learners with Learning Disabilities 3

or TECA 1303 Families, School, & Community
or ECON 2301 Principles of Macroeconomics
or GEOG 1303 World Regional Geography
Students developing these skills should be able to continually draw from their own academic programs and become effective and efficient learners. Students are ultimately expected to integrate and apply the learning skills discussed across their own academic programs and become effective and efficient learners. Students developing these skills should be able to continually draw from the theoretical models they have learned. (Cross-listed as PSYC 1300).

**EDUC 1300. Learning Frameworks. 3 Credit Hours.**
A study of the: research and theory in the psychology of learning, cognition, and motivation; factors that impact learning, and application of learning strategies. Theoretical models of strategic learning, cognition, and motivation serve as the conceptual basis for the introduction of college-level student academic strategies. Students use assessment instruments (e.g., learning inventories) to help them identify their own strengths and weaknesses as strategic learners. Students are ultimately expected to integrate and apply the learning skills discussed across their own academic programs and become effective and efficient learners. Students developing these skills should be able to continually draw from the theoretical models they have learned. (Cross-listed as PSYC 1300).

**Fourth Year - Admission to Teacher Education Required**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>READ 4312</td>
<td>Literacy Development II</td>
<td>3</td>
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<tr>
<td>READ 4313</td>
<td>Analysis and Response</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 4345</td>
<td>Mathematics &amp; Science Methods in the Elementary Classroom</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 4320</td>
<td>Integrated Social Studies Methods, EC-8</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 4484</td>
<td>Field Experience</td>
<td>4</td>
</tr>
<tr>
<td>EDUC 4335</td>
<td>Capstone for Educators</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 4691</td>
<td>Clinical Teaching</td>
<td>6</td>
</tr>
</tbody>
</table>

Total Credit Hours: 120

1 These courses may be taken during the summer.

**Education Courses**

**EDUC 1100. Learning Frameworks. 1 Credit Hour.**
A study of the: research and theory in the psychology of learning, cognition, and motivation; factors that impact learning, and application of learning strategies. Theoretical models of strategic learning, cognition, and motivation serve as the conceptual basis for the introduction of college-level student academic strategies. Students use assessment instruments (e.g., learning inventories) to help them identify their own strengths and weaknesses as strategic learners. Students are ultimately expected to integrate and apply the learning skills discussed across their own academic programs and become effective and efficient learners. Students developing these skills should be able to continually draw from the theoretical models they have learned. (Cross-listed as PSYC 1300).

**EDUC 1200. Learning Frameworks. 2 Credit Hours.**
A study of the: research and theory in the psychology of learning, cognition, and motivation; factors that impact learning, and application of learning strategies. Theoretical models of strategic learning, cognition, and motivation serve as the conceptual basis for the introduction of college-level student academic strategies. Students use assessment instruments (e.g., learning inventories) to help them identify their own strengths and weaknesses as strategic learners. Students are ultimately expected to integrate and apply the learning skills discussed across their own academic programs and become effective and efficient learners. Students developing these skills should be able to continually draw from the theoretical models they have learned. (Cross-listed as PSYC 1300).

**EDUC 3310. Theories of Learning. 3 Credit Hours.**
(WI) This course examines influential learning theories and the implications of these theories for educational practice. Survey of seminal theorists and their contributions to understanding how learning occurs and how learners develop and construct meaning to acquire knowledge and skills. This course should be taken in the first block of the teacher education program. Prerequisite(s): Admission to teacher education block 1.

**EDUC 3315. Literacy Instruction for Bilingual Classroom. 3 Credit Hours.**
Examine knowledge and skills required to teach limited English language learners, with an emphasis on program implementation, curriculum, materials, oral language, literacy development and assessment strategies. Spanish and English will be spoken in this class. Prerequisite(s): Passing scores on the BTLPT – Spanish (Bilingual Target Language Proficiency Test) – Spanish, EDUC 3325, EDUC 3320 and READ 3311. 

**EDUC 3300. World Regional Geography for Educators. 3 Credit Hours.**
Examine practices for teaching World Regional Geography. Required for a Bachelor of Science degree in Interdisciplinary Studies and for teacher certification. Must be completed before students attempt the TExES, the teacher certification exam, and before student teaching.

**EDUC 3301. Introduction to Special Populations. 3 Credit Hours.**
(080) An enriched, integrated pre-service course and content experience that provides an overview of schooling and classrooms from the perspectives of language, gender, socioeconomic status, ethnic and academic diversity, and equity with an emphasis on factors that facilitate learning. The course provides students with opportunities to participate in early field observations at all levels of P-12 schools with varied and diverse 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 for Educator Certification Pedagogy and Professional Responsibilities standards; and the course must include a minimum of 16 contact hours of field experience in P-12 classrooms.

**EDUC 2301. Introduction to the Teaching Profession. 3 Credit Hours.**
An enriched, integrated pre-service course and content experience that provides active recruitment and institutional support of students interested in a teaching career, especially in high need fields. The course provides students with opportunities to participate in early field observations at all levels of P-12 schools with varied and diverse 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 for Educator Certification Pedagogy and Professional Responsibilities standards; and the course must include a minimum of 16 contact hours of field experience in P-12 classrooms.
EDUC 3320. Professional Development in Learner Centered Schools. 3 Credit Hours.
Examine students in learner centered schools. Study lesson planning, learning styles and strengths of diverse learners, learner-centered instructions, instructional strategies, lesson plans, TEKS educational equality, and the professional standards of educators. Technology lab and documentation of field experiences are required. Certification Fee - $150.

EDUC 3325. Fundamentals of Bilingual and English as a Second Language Education. 3 Credit Hours.
Examine history, philosophies, theoretical, and legal foundations regarding Bilingual/English as a Second Language education. Learn the knowledge and skills required to teach English Language Learners, with an emphasis on instructional strategies. Prerequisite(s): EDUC 3320.

EDUC 3330. Professional Development II: Effective Instruction. 3 Credit Hours.
Examine the relationship between the state-adopted curriculum, learner-centered proficiencies, and best practices. Study lesson cycles, models of learning, instruction, uses of technology, assessment, classroom management, micro-teaching and field experience. Classroom management lab and documentation of field experiences are required. Prerequisite(s): EDUC 3320 and admission to the Teacher Education Program.

EDUC 3340. Mathematics Instruction for Classroom Teachers. 3 Credit Hours.
Study for preservice educators to plan, organize, deliver, and evaluate developmentally appropriate educational strategies and instructional techniques in teaching mathematics to diverse learners. Design responsive instruction appropriate for all learners which reflects an understanding of relevant mathematics content, promotes active engagement, and is based on continuous and appropriate assessment.

EDUC 3350. Science Instruction for Classroom Teachers. 3 Credit Hours.
Study for preservice educators to plan, organize, deliver, and evaluate developmentally appropriate educational strategies and instructional techniques in teaching science to diverse learners. Design responsive instruction appropriate for all learners which reflects an understanding of relevant science content, promotes active engagement, and is based on continuous and appropriate assessment.

EDUC 3360. The Arts for Educators. 3 Credit Hours.
This methods course is concerned with providing experience for preservice educators to plan, organize, deliver, and evaluate developmentally appropriate educational strategies and instructional techniques in teaching the arts to diverse learners. The students design responsive instruction appropriate for all learners which reflects an understanding of relevant music, art and theater content, promotes active engagement, and is based on continuous and appropriate assessment.

EDUC 3370. Instructional Strategies. 3 Credit Hours.
This course is designed to develop advanced strategies to identify readiness for learning; and to understand when and how to adjust content, process, or product in order to differentiate responsive instruction effectively. This course should be taken in the second block of the teacher education program. Certification Fee - $150. Prerequisite(s): Completion of teacher education block 1 with a minimum 2.75 GPA.

EDUC 3420. Instructional Planning and Delivery. 4 Credit Hours.
This course addresses the lesson cycle; instructional models; use of technology to enhance instruction; resources to plan, deliver and assess instruction; the role of assessment in driving instruction; Texas Essential Knowledge and Skills (TEKS) and the curricula scope and sequence. This course should be taken in the first block of the teacher education program. Prerequisite(s): Admission to teacher education block 1.

EDUC 3430. The Learner and the Learning Environment. 4 Credit Hours.
This course introduces various classroom organizational strategies, offers preservice teachers ideas for effective classroom management, and develops an understanding of the value of collaborating within the school community. The course addresses the creation of safe and supportive learning environments that foster high levels of student engagement and maximize student learning. This course should be taken in the first block of the teacher education program. Prerequisite(s): Admission to teacher education block 1.

EDUC 4304. Early Childhood Environments Professional Development III. 3 Credit Hours.
Study all aspects of classroom management, including the physical environment and use of centers for diverse groups of early elementary students. Examine current issues related to early childhood education. Demonstrate developmentally appropriate effective teaching practices in field-based setting. Prerequisite(s): Admission to the Teacher Education Program, Application for Practicum, READ 3330, EDUC 3325, EDUC 3330, EDUC 3340 and EDUC 3350; Concurrent enrollment in READ 4304, READ 4305 and EDUC 4320. Field experience fee $75.

EDUC 4305. Language Concepts and Proficiencies in a Bilingual Classroom. 3 Credit Hours.
Examine curriculum requirements as applicable to bilingual education, language concepts and proficiencies needed for teaching language arts, math, science, and social studies in bilingual classrooms. Evaluate commercial and research-based programs in order to adapt materials for students with varying degrees of language and literacy proficiency. Field experiences required. Prerequisite(s): Passing scores on the BILPT – Spanish (Bilingual Target Language Proficiency Test-Spanish), EDUC 3325, EDUC 3315, READ 3311 and READ 3335.

EDUC 4312. Literacy Development II. 3 Credit Hours.
(WI) A field-based course surveying characteristics of the transitional/ independent literacy learner, methods of instruction for writing, strategy building, comprehension, vocabulary, word identification, utilizing the Texas Essential Knowledge and Skills. Examines typical/atypical reading development and strategies for assessing/addressing reading differences in individual learners. Explores structures and features of expository text including examination of supports and challenges within the text.

EDUC 4315. Elementary Curriculum, Assessment and Instruction. 3 Credit Hours.
Implement assessment-driven instruction and curricular design in interdisciplinary contexts. Apply knowledge of developmental stages, learner needs, and the stated expectations of TEKS in the core content areas to design, implement, and evaluate an interdisciplinary curriculum. Study effective teaching practices, problem based learning and technology applications. Pre-requisites EDUC 3320, EDUC 3330 and concurrent enrollment in EDUC 4304, READ 4304 and READ 4305.

EDUC 4317. Assessment & Interpretation for Secondary Teachers. 3 Credit Hours.
This course is for students seeking a secondary certification to examine technology driven design and implementation of data-driven instruction to include the implementation of effective assessments, student data collection, analysis, interpretation, and communication aligned to learning goals for a diverse student population. The objective of this course if for the secondary pre-service teachers to be able to demonstrate the ability to effectively collect, analyze and communicate student data for continuous teaching and learning for diverse students. Prerequisite(s): Admission into the Teacher Education Program. Field Experience required. Field Experience Fee: $25.
EDUC 4320. Integrated Social Studies Methods, EC-8. 3 Credit Hours.
This methods course is concerned with providing experience for preservice educators to plan, organize, deliver, and evaluate developmentally appropriate educational strategies and instructional techniques in teaching Social Studies through the integration of English Language Arts and Fine Arts. It correlates social studies content with the National Council of Social Studies Strands and disciplines and the Texas Essential Knowledge and Skills. This course should be taken in the third block of the teacher education program. Prerequisite(s): Admission to teacher education program.

EDUC 4325. History for Educators. 3 Credit Hours.
This methods course is concerned with providing experience for pre-service educators to plan, organize, deliver, and evaluate developmentally appropriate educational strategies and instructional techniques in teaching US, Texas and world history to diverse learners. The students design responsive instruction appropriate for all learners which reflects an understanding of relevant history content, promotes active engagement, and is based on continuous and appropriate assessment.

EDUC 4330. Professional Development III. 3 Credit Hours.
Field-based and practicum experiences are required in school settings, where students plan units of instruction, examine various models of instruction, analyze classroom management strategies, and demonstrate competencies in effective teaching practices. Prerequisite(s): Admission to the Teacher Education Program, EDUC 3330 and READ 3335. Field experience fee - $75.

EDUC 4331. Curriculum & Instruction for Secondary Teachers. 3 Credit Hours.
The course will study lesson planning, lesson cycles, learning styles and strengths of diverse learners. Additionally, teacher candidates will explore learner-centered instruction and strategies, brain-based learning, cooperative learning, assessment, classroom management, integration of technology, and the state-adopted curriculum (TEKS). The teacher candidates will examine the relationship between the state-adopted curriculum, learner-centered proficiency, and best practices. Field experiences 25 hours are required as well as $25 field experience fee. Additionally, a fee of $150 is due for certification. Prerequisite(s): Admission to the Teacher Education Program.

EDUC 4332. Classroom Management for Secondary Teachers. 3 Credit Hours.
This course provides secondary educators with knowledge and skills to create safe, supportive, and respectful learning environments. Students will analyze classroom management strategies and examine various modes of instruction. An analysis of legal and ethical issues as they relate to the classroom are an important component of the course. Secondary students will have field-based experience based on in-school settings. Admittance into the Teacher Education Program. Prerequisite(s): Admittance into the Teacher Education Program. Field Experience required. Field Experience Fee: $25.

EDUC 4335. Capstone for Educators. 3 Credit Hours.
Capstone is a culminating course designed for teacher candidates to synthesize their knowledge across the program through the development of artifacts that demonstrate effective integration of content understanding and pedagogical skills. The teacher candidates will analyze student learning and reflect on their teaching effectiveness in order to facilitate learning for all students. Prerequisite(s): Admittance to the Teacher Education Program, successful completion of Content Certification Examination, and concurrent enrollment in Clinical Teaching (EDUC 4691).

EDUC 4337. Educating Secondary Exceptional Learners. 3 Credit Hours.
This course provides instruction in the historical, philosophical, and legal foundations of exceptional education as related to current issues and practices in educational settings. It comprises issues and trends that include transition – related instruction, postsecondary programs, and adaptability to and in secondary classrooms. Teacher candidates will develop an awareness of legal aspects of exceptional education as well as needs and services specific to students with specific needs in the secondary classroom. Prerequisite(s): Field experience required. Field experience fee $25.

EDUC 4340. Technology Application and Integration for Classroom Teachers. 3 Credit Hours.
Study for preservice educators to plan, organize, deliver, and evaluate instruction for diverse learners through the effective use and integration of current technology. Use of technology for ethical and professional communication with colleagues, community, and students. Prerequisite(s): Admission to Clinical Teaching; successful completion of designated content area Texas Examination of Educator Standards (TExES); concurrent enrollment in EDUC 4691 and EDUC 4335 or permission of department chair.

EDUC 4345. Mathematics & Science Methods in the Elementary Classroom. 3 Credit Hours.
This purpose of this course is to help preservice teachers discover how elementary children think and learn about mathematics. Examines the curriculum foundations and instructional methods for elementary mathematics. Building upon previous mathematical knowledge, and with a focus on supporting high quality mathematics education, this course provides resources and opportunities for experience with a number of instructional strategies and manipulatives. Science instruction focuses on the methods, materials and approaches for teaching science, including developmentally appropriate introductions to the physical, earth and life sciences. This course should be taken in the third block of the teacher education program. Prerequisite(s): Admission to teacher education program.

EDUC 4384. Classroom Teaching Internship. 3 Credit Hours.
Explore 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. May be repeated for credit. Prerequisite(s): Admission to the Teacher Education Program. Field experience fee: $75.

EDUC 4388. Education Problems. 1-3 Credit Hours.
Study of selected problems in education. Engage in independent research, reading and discussions under the personal direction of the instructor; topics may vary according to student need. Prerequisite(s): Junior or senior standing, admission to the Teacher Education Program and permission of Curriculum and Instruction Program Coordinator.

EDUC 4484. Field Experience. 4 Credit Hours.
Supervised field-based experiences in public school classrooms. Major emphasis is placed on the identification and exploration of instructional strategies, the learning environment, and professional practices designed to prepare for clinical teaching. This course should be taken in the third block of the teacher education program. Field experience fee: $75.00
Prerequisite(s): Admission to teacher education program.
EDUC 4691. Clinical Teaching. 6 Credit Hours.
Explore supervised clinical teaching in the public schools at the appropriate level (1-18). A demonstration of proficiency in the application of effective teaching practices and classroom management strategies is required. Prerequisite(s): Admission to Clinical Teaching and the successful completion of designated content area of the Texas Examination of Educator Standards (TXES): Concurrent enrollment in EDUC 4335 and EDUC 4340, or permission of department chair. 7-12 math students may take MATH 3315 in place of EDUC 4340. Field experience fee - $75.

EDUC 5090. Education Comprehensive Examination. 0 Credit Hours.
Study and take the education examination for Non-thesis students. Register for the comprehensive examination during final semester of graduate coursework, or upon permission of advisor. All comprehensive examinations will be written, but an oral component may also be required. A maximum of three attempts will be allowed. Thesis student do not take this examination.

EDUC 5198. Education Thesis. 1-6 Credit Hours.
Independent research course in which a student proposes and completes an original, quantitative research project. Scheduled when the student is ready to begin thesis. No credit awarded until proposal and thesis are complete. Prerequisite(s): Completion of all other coursework required for the degree and consent of the major professor or permission of department chair.

EDUC 5300. Foundations and History of Education. 3 Credit Hours.
Examine history of education in the United States through a study of the philosophical, historical, psychological and social foundations of curriculum. Emphasis is on the development of a philosophy of education and critical thinking about issues in education. Students must complete this course within the first twelve semester hour of graduate study.

EDUC 5301. Readings in Professional Development. 3 Credit Hours.
Examine current issues in the professional development of educators. Study 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. Cultural Diversity in Schools and Community. 3 Credit Hours.
Examine various dimensions of culture related to teaching, learning, and support services in the community. Study ethnicity, socio-economic status, language, gender, religion, age, and exceptionality.

EDUC 5304. Human Development. 3 Credit Hours.
Analyze human behavior with emphasis on the child, adolescent, and adult learner. Develop insight and social and cultural forces in the formation of personality, the self, and roles in group membership.

EDUC 5306. Adult Education. 3 Credit Hours.
Examine philosophy and concepts of adult education including the role of the adult educator, setting of objectives, integration of adult learning with career goals or changes and assessment of educational needs of adults.

EDUC 5311. Methods of Effective Teaching. 3 Credit Hours.
Study research on effective teaching practices with an emphasis on direct instruction. Learn mastery learning, assessment of learning and use of assessment to guide instruction. Apply technology and effective teaching practices to the design and delivery of instruction. Technology lab is required. Certification Fee - $150.

EDUC 5312. Language and Social Studies Seminar. 3 Credit Hours.
Learn to teach Social Studies through the application of the writing process, reading/writing connections, and children's literature. Prerequisite(s): 18 hours of professional education course work.

EDUC 5314. Creating and Managing Learning Environment. 3 Credit Hours.
Learn to create and maintain a positive learning environment. Study cultural dimensions of classroom management, motivating student achievement, fostering cooperation among students, reinforcing appropriate behavior, and ethics and law governing teacher-student relations. Apply teaching and classroom management practices in a clinical laboratory setting.

EDUC 5322. Teaching Mathematics and Science. 3 Credit Hours.
Study 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. 3 Credit Hours.
Study early childhood education curriculum and practices. Examine current trends in early childhood curriculum with an emphasis on the modifications needed to ensure the success of all young children. Prerequisite(s): 18 hours of professional educational course work.

EDUC 5338. Curriculum Design and Implementation. 3 Credit Hours.
Explore curriculum selection, design, implementation, and evaluation processes within the classroom and school district settings. Study factors that influence curriculum decision-making processes and a review of theories of curriculum development. Major emphasis on curriculum alignment and curriculum auditing.

EDUC 5340. Evidence Based Teaching. 3 Credit Hours.
In this course, participants will learn about various instructional strategies to enhance learning experiences in education. The class will cover appropriate methods and techniques from basic principles of learning and brain-based/whole-brain techniques. The course will also foster 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 5345. Advanced Instructional Strategies for Diverse Learners. 3 Credit Hours.
Study appropriate methods and techniques from basic principles of learning. Develop 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 and Interpretation for Education Leaders. 3 Credit Hours.
Examine 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 Programs. 3 Credit Hours.
Study 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.
Study 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.
Study theories and models of creativity. Emphasis will be given to identifying the creative potential of students in all classrooms. Examine and develop instructional processes which accommodate the needs of creative learners. Prerequisite(s): EDUC 5360.
EDUC 5364. Curriculum and Material Development For Gifted Learners. 3 Credit Hours.
Study a comparison of regular and gifted curricula with a focus on developing an interdisciplinary curriculum for gifted learners. Examine and evaluate existing materials and equipment which support instruction for the gifted in both regular and special programs. Emphasis will be on developing and evaluating teacher constructed materials. Prerequisite(s): EDUC 5360.

EDUC 5366. Instruction and Evaluation For Gifted Learners. 3 Credit Hours.
Analyze methods of determining specific learning styles and talents, with emphasis placed on implementing appropriate instruction for programs. Learn methods and tools of informal and formal evaluation and assessment. Prerequisite(s): EDUC 5360 and EDUC 5364.

EDUC 5369. Education Seminar. 1-3 Credit 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 5370. Techniques of Research. 3 Credit Hours.
Explore fundamental concepts and tools of research applied to psychological and educational problems. Study rationale of research, analysis of problems, library skills, sampling, appraisal instruments, statistical description and inference, writing the research report, and representative research designs.

EDUC 5384. Teaching Internship. 3 Credit Hours.
Gain field-based experience in classroom teaching. Interns must demonstrate proficiency in applying effective teaching practices and classroom management strategies in a school classroom. Prerequisite(s): admission to a teacher certification program; satisfactory performance in the professional development courses preceding the internship. May be repeated for credit. Field experience fee - $75 or Internship fee - $1500 (effective fall 2016).

EDUC 5385. Teaching Internship II. 3 Credit Hours.
Explore a 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(s): Admission to a teacher certification program at TAMUCT; satisfactory performance in the professional development courses preceding the internship; Second semester Prerequisite(s): EDUC 5384. Field experience fee - $75 or Internship fee - $1500 (effective fall 2016).

EDUC 5388. Special Education Problems. 1-6 Credit Hours.
Study of selected problems in special education. Engage in independent research, reading and discussions under the personal direction of the instructor, topics may vary according to student need. Open to graduate students who are capable of developing a problem independently. Prerequisite(s): Graduate major in Education.

EDUC 5389. Special Topics In Education. 3 Credit Hours.
Examine 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 course may be repeated for credit as topic changes. Prerequisite(s): Permission of instructor.

EDUC 5391. Gifted Education Practicum. 3 Credit Hours.
Supervise 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. Prerequisite(s): Successful completion of EDUC 5360, EDUC 5362, EDUC 5364 and EDUC 5366.

Reading Courses

READ 3301. Introduction to Children's Literature. 3 Credit Hours.
Study literature for children focusing on the use of classic and contemporary texts to promote interest, motivation, and critical reading skills for self-selected reading in the elementary student. Learn to use texts to emphasize literary genre, text structures, and literary devices as tools for making connections and meaning. Prerequisite(s): Required core ENGL classes for degree. Credit will not be granted for READ 3301 and ENGL 3350.

READ 3310. Foundations of Literacy. 3 Credit Hours.
This course provides an overview of foundational concepts, principles, and best practices related to the science of teaching reading. Includes a survey of the cognitive, socio-cultural, linguistic, and motivational influences on literacy and language development. Presents the key scientifically-based reading research foundations needed to understand how reading develops from early childhood through adolescence. Prerequisite(s): Admission to teacher education block 1.

READ 3311. Literacy Development I. 3 Credit Hours.
This course addresses the theory and practice of teaching early reading. Takes into consideration theories of learning, understandings of students and their needs, and the backgrounds and interests of individual students. Study characteristics of typical and atypical reading development in the emergent/early learner, explore materials, procedures, assessments and instructional methods. Prerequisite(s): Completion of teacher education block 1 with a minimum 2.75 GPA.

READ 3320. Fundamentals of Teaching Reading. 3 Credit Hours.
(WI) This course focuses on research-based competencies essential for effective literacy instruction. Surveys characteristics of normal reading development in the elementary through middle school learner; explores materials, procedures, assessment and instructional methods considered effective in teaching oral language, writing, strategy building for comprehension, vocabulary, and word identification.

READ 3330. Reading II: Assessment, Instruction and Reader Development. 3 Credit Hours.
(WI) Study characteristics of the transitional and fluent literacy learner, methods of assessment and instruction for strategy building, comprehension, vocabulary, word identification, and TEKS/TAKS. Examine normal reading development, reading difficulties, strategies for assessing/addressing reading differences including diverse learner reading processes and development of literacy in English or ELL. Prerequisite(s): READ 3311 and Admission to the Teacher Education Program. Concurrent enrollment in EDUC 3330.

READ 3335. Content Area Reading. 3 Credit Hours.
(WI) Examine factors that influence learning from content text and study specific instructional strategies which promote comprehension, vocabulary development, effective study strategies, and test-taking skills. Study ways to modify text for diverse learners and the principles of research-based reading instruction. Must be admitted to the Teacher Ed Program.
READ 4304. Reading and Writing Across the Curriculum. 3 Credit Hours. (WI) Study theory and instructional strategies for teaching the writing process in elementary and middle schools. Learn stages of the writing process, issues at the different grade levels, teaching with mini-lessons, early literacy, spelling, handwriting, developing listening skills, process writing, and the use of children's literature to teach writing. Prerequisite(s): READ 3330 and EDUC 3330, and concurrent enrollment in READ 4305 and EDUC 4304 or EDUC 4330.

READ 4305. Implement Classroom Reading Instruction. 3 Credit Hours. Study state and national reading initiatives, approaches to teaching reading, procedures for organizing the elementary and middle school classrooms for reading instruction, research on effective reading-writing instruction, and roles of school personnel and parents in the school reading program. Prerequisite(s): READ 3330 and EDUC 3330, and concurrent enrollment in READ 4304 and EDUC 4304 or EDUC 4330, or permission of department chair.

READ 4312. Literacy Development II. 3 Credit Hours. (WI) A field-based course surveying characteristics of the transitional/independent literacy learner, methods of instruction for writing, strategy building, comprehension, vocabulary, word identification, utilizing the Texas Essential Knowledge and Skills. Examines typical/atypical reading development and strategies for assessing/addressing reading differences in individual learners. Explores structures and features of expository text including examination of supports and challenges within the text. Prerequisite(s): Admission to teacher education program.

READ 4313. Analysis and Response. 3 Credit Hours. (WI) This course examines the foundational concepts, principles and best practices relating to assessment, utilizing a variety of evaluation and assessment tools. Students will analyze assessment data related to literacy development in order to plan appropriate instruction for typical/atypical learners. In-depth analyses are prepared to communicate student literacy outcomes to various audiences. Prerequisite(s): Admission to teacher education program.

READ 5370. Literacy Development. 3 Credit Hours. Analyze models of the reading and writing processes. Emphasis on characteristics of emergent, early, transitional and fluent literacy, instructional strategies in reading and writing, phonics instruction and strategies for teaching English language learners, and the essential knowledge and skills in the language arts curriculum. Prerequisite(s): admission to the teacher certification program.

READ 5371. Advanced Strategy for Literacy Development. 3 Credit Hours. Study research in literacy development from early childhood through adulthood. Learn to develop research-based literacy programs from early childhood through adulthood, apply informal diagnostic and remedial procedures for English language learners, elementary, secondary and adult readers, and survey print and non-print materials, including textbooks, trade books and computer software. Prerequisite(s): admission to the teacher certification program.

READ 5372. Language Arts. 3 Credit Hours. Examine research and strategies for implementing the reading/writing process in classrooms. Explore integrated curriculum, the use of children's literature, classroom management and organization, evaluation, working with diverse learners, and developing support networks. Prerequisite(s): READ 5373 or 9 hours of undergraduate READ courses or permission of department chair.

READ 5373. Foundations of Reading. 3 Credit Hours. Examine theoretical models of the reading process, historical perspectives on reading instruction, and language learning. Develop an understanding of the construction of reading theory and its relationship to instructional practices. Prerequisite(s): Elementary, secondary, or all-level certification or permission of department chair.

READ 5374. Reading Resources and Materials. 3 Credit Hours. Study print and non-print materials including content-area textbooks, trade books, and computer software. Evaluate materials and application of reading principles to instruction in content areas. Prerequisite(s): READ 5373 or 9 hours of undergraduate READ courses or permission of department chair.

READ 5375. Reading Research and Assessment. 3 Credit Hours. Examine methods and techniques employed in reading research and assessment. Review research and the development, implementation, and dissemination of classroom research. Explore the application of appropriate diagnostic and correctional procedures for elementary, secondary, and adult learners having difficulty reading. Prerequisite(s): READ 5373 or 9 hours of undergraduate READ courses or permission of department chair.

READ 5376. Organization and Administration of Reading Programs. 3 Credit Hours. Study state laws, trends and issues related to the administration of reading programs. Examine instructional issues and reading programs for pre-K through adult learners, censorship issues, textbook/test adoption procedures, roles and responsibilities in the reading program, staff development, and change strategies. Prerequisite(s): READ 5373 or 9 hours of undergraduate READ courses or permission of department chair. Certification Fee - $150.

READ 5388. Reading Problems. 1-3 Credit Hours. Study of selected problems in reading. Engage in independent research, reading and discussions under the personal direction of the instructor, topics may vary according to student need. Prerequisite(s): Permission of department chair.

READ 5391. Reading Practicum. 3 Credit Hours. Apply knowledge gained in previous Reading Specialist certification courses. Practicum candidates will be directly involved in providing 180 clock hours of reading services to students in a local public or private school setting, and will document expertise and experience in all four Standards. Prerequisite(s): READ 5373, READ 5374, READ 5375, READ 5376 and ENGL 5321; two years of creditable classroom teaching experience. Field experience fee - $75.

Special Education Courses

SPED 3361. Survey Exceptional Learners. 3 Credit Hours. Study characteristics and educational programs for individuals with disabilities. Examine the legislation and litigation related to special education and the referral, diagnosis, and placement of exceptional learners. A field experience is required. Co-requisite: Passing score on the THEA, ACCUPLACER, COMPASS, or ASSET.

SPED 4362. Special Education Rules and Regulations for Teacher. 3 Credit Hours. Analyze laws and litigation that affect the education of students with disabilities. Examine 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(s): SPED 3361.
SPED 4363. Teaching Learners with Learning Disabilities. 3 Credit Hours.
Analyze laws and litigation that affect the education of students with disabilities. Examine 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(s): SPED 3361.

SPED 4364. Teaching Learners with Developmental Disabilities. 3 Credit Hours.
Study the etiology and characteristics associated with deficits in development. Examine effects of developmental disabilities in the areas of language acquisition and physical, social and emotional functioning. Explore 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(s): SPED 3361.

SPED 4365. Behavioral Management for the Classroom. 3 Credit Hours.
Explore managing a classroom that includes students with disabilities. Study 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. Also study typical characteristics associated with emotional disabilities and identification procedures utilized. Field experience required. Prerequisite(s): SPED 3361.

SPED 4366. Curriculum Modifications and Accommodations for General Education. 3 Credit Hours.
Study methods and approaches for adapting educational processes for students with disabilities. Emphasis on specialized teaching methods, preparation of materials, use of technology for adapting instruction and developing modifications and accommodations for the general education curriculum. Field experience required.

SPED 4367. Programs For Young Children with Disabilities. 3 Credit Hours.
Study young children with disabilities from birth to 6 years old, with an emphasis on the techniques for implementing programs to meet the needs of the child and the family. Learn early intervention, medical intervention, and public school educational programming for at-risk infants, toddlers, and young children, as well as parent involvement models to promote optimum parent-child and parent–professional relationships. Special emphasis on recent research related to early childhood special education. Field experience required. Prerequisite(s): SPED 3361.

SPED 4383. Teaching Learners with Learning and Behavior Anomalies. 3 Credit Hours.
Learning disabilities, emotional disturbances, and behavior management are investigated as intertwining educational divisions. Histories, definitions, etiologies, and characteristics are examined in conjunction with teaching methods for academics and social skills as well as effective inclusive practices. Strategies for successful collaboration with parents and various educators are explored. Field experience is required. Prerequisite: SPED 3361.

SPED 4388. Special Education Problems. 1-3 Credit Hours.
Study of selected problems in special education. Engage in independent research, reading and discussions under the personal direction of the instructor; topics may vary according to student need. Prerequisite(s): Junior or senior standing and admission to the Teacher Education Program and permission of the instructor and Curriculum and Instruction Program Coordinator.

SPED 4389. Special Education Problems. 1-3 Credit Hours.
Study of selected problems in special education. Engage in independent research, reading and discussions under the personal direction of the instructor; topics may vary according to student need. Prerequisite(s): SPED 3361.

SPED 5305. Introduction to Exceptional Learners. 3 Credit Hours.
Study learner characteristics and an examination of instructional techniques that promote academic, personal, and social growth in exceptional learners also examination of the process and procedures relating to the services provided to learners with disabilities. Prerequisite(s): 18 hours of professional education, certification, or admission to the graduate teacher certification program.

SPED 5311. Behavioral Management in Special Education Environment. 3 Credit Hours.
Study characteristics of students with emotional disabilities, including the application of behavioral management strategies appropriate for students with emotional and behavioral disabilities. Engage in functional assessments of behavior, development of behavior intervention plans, strategies for teaching appropriate behavior, crisis management strategies, and integrating behavior management with instructional programs in school, community and home settings. Prerequisite(s): Admission to the graduate teacher certification program.

SPED 5313. Advanced Study of Learning Disabilities. 3 Credit Hours.
Study research on learning disabilities, including causation, diagnosis and educational programming. Learn methods for teaching students with learning disabilities, adapting general education classrooms to accommodate the inclusion of students with learning disabilities, and collaboration with parents, paraprofessionals and general education teachers. Prerequisite(s): Admission to the graduate teacher certification program.

SPED 5315. Advanced Study of Developmental Disabilities. 3 Credit Hours.
Study research-based instructional methods appropriate for students with developmental disabilities. Learn assessment and teaching of functional academic skills, life management and communication skills, collaborating with parents, paraprofessionals, general education teachers and related service providers, community-based instruction, and vocational planning and preparation. Prerequisite(s): Admission to the graduate teacher certification program.

SPED 5325. Appraisal Exception for Learners. 3 Credit Hours.
Analyze standardized assessments of the academic achievement of students referred for or currently receiving special education services, administer, score, analyze, report and plan programs according to results. Prerequisite(s): PSYC 5301 or concurrent enrollment or permission of Curriculum and Instruction Program Coordinator.

SPED 5327. Teaching Students with Severe and Profound Disabilities. 3 Credit Hours.
Study 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, and transition and placement issues. Prerequisite(s): SPED 5305 or permission of Curriculum and Instruction Chair.

SPED 5328. Case Management Education Diagnosticians. 3 Credit 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 Diagnosticians Certification Program or permission of Curriculum & Instruction Program Coordinator. Prerequisite(s): SPED 5325.
SPED 5329. Assessing Cognitive Abilities. 3 Credit Hours.
Standardized assessment of the cognitive and adaptive behavior abilities of exceptional students. Includes test administration, scoring, analysis, and program planning. Prerequisite(s): PSYC 5381 or permission of Curriculum & Instruction Program Coordinator.

SPED 5384. Special Education Teaching Internship. 3 Credit 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. Prerequisite(s): admission to a teacher certification program at TAMUCT; satisfactory performance in the professional development courses preceding the internship. May be repeated for credit. Field experience fee $75.

SPED 5385. Education Diagnostician Internship. 3 Credit Hours.
Supervised professional activities for persons preparing for certification as an educational diagnostician. Professional activities will include test administration, scoring, analysis, diagnosis, report writing, and program planning. Interns will be required to demonstrate competence in the performance of professional duties as an educational diagnostician. A minimum of 300 hours of documented related professional activities will be required. Prerequisite(s): SPED 5305, SPED 5325 and SPED 5329 or permission of Curriculum & Instruction Program Coordinator. Field experience fee: $75.

SPED 5388. Special Education Problems. 1-3 Credit 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 Division Director. Prerequisite(s): Full admission to the Graduate School and a graduate degree or certification program.

B.S. Exercise Physiology and Human Performance

OVERVIEW
A bachelor’s degree in Exercise Physiology and Human Performance from A&M-Central Texas prepares students for careers and graduate school opportunities in a multitude of health and fitness-related fields. Whether your goal is to enter the athletic performance industry or pursue a medical degree, you will experience relevant coursework, excellent faculty, and hands-on training in A&M-Central Texas’ new, state-of-the-art Human Performance Research Laboratory.

Program Level Student Learning Outcomes
The student will be able to:

1. Articulate the fundamental principles of exercise science and nutrition.
2. Prescribe individualized exercise and nutritional interventions.
3. Analyze current trends in exercise science.

Bachelor of Science - Exercise Physiology and Human Performance Program Requirements
Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan.
EPHP 4301. Exercise Physiology I. 3 Credit Hours.
The purpose of this course is to increase the student's knowledge and understanding of the physiological adaptations that occur during exercise. Emphasis will be applied to the cardiovascular, respiratory, and digestive systems. Prerequisites: BIOL 2401, BIOL 2402.

EPHP 3302. Exercise Physiology II. 3 Credit Hours.
The purpose of this course is to further increase the student's knowledge and understanding of the physiological adaptations that occur during exercise. Emphasis will be applied to the nervous, muscular, skeletal, and endocrine systems. Prerequisite: EPHP 3301.

EPHP 3303. Anatomical Kinesiology. 3 Credit Hours.
The purpose of this course is to study the application of basic mechanics of human motion to physical education activities. Includes a study of gross anatomy with application of the anatomical and mechanical principles involved in human movement. Prerequisites: BIOL 2401, BIOL 2402.

EPHP 3304. Exercise Biochemistry. 3 Credit Hours.
This course provides an overview of the biochemistry and metabolism related to exercise, training adaptations, and nutrition. Prerequisite: CHEM 1411, CHEM 1412.

EPHP 3305. Principles and Techniques of Strength Training and Conditioning. 3 Credit Hours.
This course provides an overview of the principles of program design. Methods of resistance training and assessment are emphasized in laboratory demonstrations. Prerequisite(s): EPHP 3301.

EPHP 3306. Exercise Testing and Prescription. 3 Credit Hours.
The purpose of this course is to teach students how to use relevant fitness testing equipment and prescribe appropriate exercise program based on fitness evaluations. Students will learn the guidelines and protocols for safe and effective exercise testing for normal and special populations. Prerequisite(s): EPHP 3301.

EPHP 4101. Advanced Resistance Training. 1 Credit Hour.
This course provides an opportunity for students to develop an increased understanding and appreciation for the principles of resistance training through direct participation in this style of training. Prerequisite: EPHP 3302.

EPHP 4102. Advanced Cardiovascular Training. 1 Credit Hour.
This course provides an opportunity for students to develop an increased understanding and appreciation for the principles of cardiovascular training through direct participation in this style of training. Prerequisite(s): EPHP 3301.

EPHP 4301. Leadership in Exercise and Sport. 3 Credit Hours.
(WI)The purpose of this course is to provide a general overview of leadership dynamics and their application to exercise and sports settings.

EPHP 4304. Principles of Strength and Muscular Hypertrophy. 3 Credit Hours.
This course provides an overview of the role of nutrition as a means to enhance health and performance in exercise and sport. Topics to be covered include principles of healthful nutrition, energy metabolism, the role of vitamins and minerals, ergogenic aids, and weight management. Prerequisite: EPHP 3304.

EPHP 4305. Research Methods. 3 Credit Hours.
This course will introduce students to research methodologies, data analysis techniques, and research evaluation for fields related to Exercise Physiology and other Health Sciences.

EPHP 4306. Exercise Physiology and Human Performance Internship. 6 Credit Hours.
The internship provides hands-on experience for the human performance major in the area of his or her concentration. A minimum of 250 hours on-site is required. The experience includes a special project determined jointly by the student and the agency intern supervisor. Prerequisites: EPHP 3301, 3302, 3303, 3304, 3305, 3306.

B.S. Psychology

OVERVIEW

The Psychology program at A&M-Central Texas offers a variety of courses in clinical work, research, applied psychology, and psychological theory. Program faculty are researchers who are committed to excellence in education, and have diverse backgrounds reflective of the broad scope of the field of psychology (e.g., abnormal psychology, cognitive psychology, developmental psychology, and social psychology).

There are many opportunities for psychology majors to conduct research with faculty members exploring a range of topics including program evaluation, responses to trauma, exam anxiety, online learning and more.

While the majority of our graduates go on to further study in psychology and are accepted into a graduate program, others have found jobs or
advanced in their existing careers at human services agencies within the Central Texas region.

**Program Level Student Learning Outcomes**

The student will be able to:

1. Demonstrate factual knowledge (terminology, classifications, methods, trends).
2. Demonstrate knowledge of fundamental principles, generalizations, or theories.
3. Apply course material to improve thinking, problem solving, and decisions, both in coursework and in real-life situations.
4. Demonstrate skill in expressing oneself in oral presentations and in writing.
5. Find and use resources for answering questions and solving problems.
6. Analyze and critically evaluate ideas, arguments, and points of view.
7. Practice skills in working with others as a member of a team.
8. Demonstrate specific skills, competencies, and points of view needed by professionals in fields most closely related to specific courses.
9. Demonstrate an understanding and appreciation of intellectual/cultural/historical activity in psychology.
10. Demonstrate a clear understanding of, and commitment to, ethics and personal values.

**Bachelor of Science - Psychology Program Requirements**

Refer to the General Education Core Requirements (p. 28) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

The program listed is a general guideline for semester coursework, speak with a college advisor for an individualized student education plan.

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PSYC 4435
Upper-Level Elective
Spring
PSYC 4320
PSYC 4305
Upper-Level PSYC Elective or PSYC 4384
Upper-Level Elective
Total Credit Hours

1 Lower Level Electives, Any Level Electives or Degree Requirements (DEG REQ) may be the FOS courses: PSYC 2301, PSYC 2314, PSYC 2317, PSYC 2319, PSYC 2320, PSYC 2330.

Courses

PSYC 1300. Learning Framework. 3 Credit Hours.
A study of the 1) research and theory in the psychology of learning, cognition, and motivation, 2) factors that impact learning, and 3) application of learning strategies. Theoretical models of strategic learning, cognition, and motivation serve as the conceptual basis for the introduction of college-level student academic strategies. Students use assessment instruments (e.g., learning inventories) to help them identify their own strengths and weaknesses as strategic learners. Students are ultimately expected to integrate and apply the learning skills discussed across their own academic programs and become effective and efficient learners. Students developing these skills should be able to continually draw from the theoretical models they have learned. (Cross-listed as EDUC 1300).

PSYC 2301. General Psychology. 3 Credit Hours.
(080) General Psychology is a survey of the major psychological topics, theories and approaches to the scientific study of behavior and mental processes.

PSYC 2306. Human Sexuality. 3 Credit Hours.
(080) This course will provide an overview of the broad field of human sexuality. Topics will be covered from various perspectives — biological, sociological, anthropological, etc., but will focus primarily on the psychological perspective. The goal is for each student to learn factual, scientifically-based information that will provoke thought and contribute to his/her own decision-making on sexual issues outside of the classroom.

PSYC 2307. Adolescent Psychology. 3 Credit Hours.
(080) This course explores the physical, behavioral, mental, emotional, and social changes that accompany growth and development in adolescence. The purpose of this course is provide an overview of theories, research, issues, and applications related to adolescent development.

PSYC 2308. Child Psychology. 3 Credit Hours.
(080) This course will address psychological development from conception through middle childhood with references to physical, cognitive, social and personality changes. Students will examine the interplay of biological factors, human interaction, social structures and cultural forces in development.

PSYC 2314. Lifespan Growth & Development. 3 Credit Hours.
(080) Life-Span Growth and Development is a study of social, emotional, cognitive and physical factors and influences of a developing human from conception to death.

PSYC 2315. Psychology of Adjustment. 3 Credit Hours.
(080) Study of the processes involved in adjustment of individuals to their personal and social environments.

PSYC 2316. Psychology of Personality. 3 Credit Hours.
(080) Study of various approaches to determinants, development, and assessment of personality.

PSYC 2317. Statistical Methods in Psychology. 3 Credit Hours.
(020) (080) This course covers descriptive and inferential statistics used in psychological research and assessment. It includes measurement, characteristics of distributions; measures of central tendency and variability; transformed scores; correlation and regression; probability theory; and hypotheses testing and inference. (PSYC 2317 is included in the Psychology Field of Study.) Prerequisite(s): PSYC 2301 MATH 1314.

PSYC 2319. Social Psychology. 3 Credit Hours.
(080) Study of individual behavior within the social environment. Topics may include socio-psychological processes, attitude formation and change, interpersonal relations, group processes, self, social cognition, and research methods. (PSYC 2319 is included in the Psychology Field of Study).

PSYC 2320. Abnormal Psychology. 3 Credit Hours.
This course provides an introduction to the psychological, biological, and socio-cultural factors involved in the development, diagnosis, and treatment of psychological disorders. It includes a review of the historical understanding of abnormal behavior and the development of modern diagnostic systems. It includes discussion of psychological research and practice as it relates to mental health and psychological functioning, as well as legal and ethical issues. (PSYC 2320 is included in the Psychology Field of Study).

PSYC 2330. Biological Psychology. 3 Credit Hours.
An introduction to the biological bases of behavior. Topics include evolution, genetics, research methods in behavioral neuroscience, motivation and emotion, sensation and perception, learning and memory, lifespan development, cognition, psychological disorders, and other complex behaviors. (PSYC 2330 is included in the Psychology Field of Study.) Prerequisite(s): PSYC 2301.

PSYC 3301. Psychology of Learning. 3 Credit Hours.
Investigate major theoretical approaches, concepts and principles, and experimental methods of learning. Prerequisite(s): PSYC 2301 or permission of department chair.

PSYC 3302. Health Psychology. 3 Credit Hours.
Apply psychology principles and techniques to the fields of health and medicine, including emotional, behavioral, cognitive, social, and multidisciplinary factors. Examine the effects of illness and injury on behavior. Prerequisite(s): PSYC 2301.

PSYC 3303. Educational Psychology. 3 Credit Hours.
Apply psychological theories and principles to teaching and learning. Learn theories of human development, learning, and motivation, and how these impact the processes of teaching and learning. Analyze the impact of cultural diversity on the learning process and standardized testing. Students seeking teacher certification must be admitted to the Teacher Education Program. Prerequisite(s): PSYC 2301 or permission of department chair.
PSYC 3305. Human Cognitive Processes. 3 Credit Hours.
Study human cognition and information processing, including perception, attention, memory, reasoning, and problem solving. Explore experimental methods and current theories of human cognition. Prerequisite(s): PSYC 2301 or permission of department chair.

PSYC 3307. Human Lifespan. 3 Credit Hours.
Explore development from conception through adulthood with emphasis on social adaptation of individuals and roles in families, groups, and communities. Study cognitive, social, personal and biological factors of the stages of development.

PSYC 3309. Writing in Psychology. 3 Credit Hours.
(WI) Examine advanced technical communication in psychology. Study and use the current edition of the Publication Manual of the American Psychological Association for formal research reports, literature reviews, grant proposals, and professional articles. Learn to write professional psychological reports. Prerequisite(s): PSYC 2301, ENGL 1301, and ENGL 1302, or permission of Departmental Chair.

PSYC 3310. Abnormal Psychology. 3 Credit Hours.
Study an overview of the history, causes, and treatments of deviant behavior. Learn psychological, social, and physiological factors as they relate to the development of abnormal behavior and its subsequent treatment. Prerequisite(s): PSYC 2301 and PSYC 3309 or permission of Departmental Chair.

PSYC 3311. Behavior Analysis and Behavior Management. 3 Credit Hours.
Examine the basic principles and methods of behavior analysis and behavior management techniques. Study 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(s): PSYC 2301 or permission of department chair.

PSYC 3312. Biological Foundations of Behavior. 3 Credit Hours.
Study biological basis of behavior. Learn in-depth examination of physical structure of the human body and the role of chemical and electrical operations within it. Emphasis will be placed on the developmental, cognitive, affective, and behavioral effects of such operations, and recent research will be reviewed. Prerequisite(s): PSYC 2301, 6 hours of BIOL lab science, and PSYC 3309 or permission of department chair.

PSYC 3315. Human Sexuality. 3 Credit Hours.
Study psychology of sexual behavior, exploring the field’s diversity, controversy, and current research, in a non-judgmental way. Explores historical, biological, psychological, and relevant social aspects of human sexuality. Prerequisite(s): PSYC 2301.

PSYC 3318. Psychology of Gender. 3 Credit Hours.
An examination of gender from a psychological and cultural perspective. Discusses how and why social expectations, standards, and opportunities tend to be systematically related to gender and the corresponding effects on male and female experience. Prerequisite: PSYC 2301 or permission of department chair.

PSYC 3320. Psycholinguistics. 3 Credit Hours.
Analyze the study of language, understanding languages, producing language and speech, language development, and related topics such as reading, language and the brain, linguistic diversity, and universals. Prerequisite(s): PSYC 2301 and PSYC 3309 or permission of department chair.

PSYC 3330. Statistics for the Behavioral Science. 3 Credit Hours.
Study measures of central tendency, variability, and correlation. Analyze applications of statistical inference to research in Psychology, reliability and validity of psychological tests and measurement, analysis of variance, multiple analysis of variance, and regression. Prerequisite(s): PSYC 2301 and MATH 1314 or MATH 1342 or permission of department chair.

PSYC 3350. Personality. 3 Credit Hours.
Analyze personality, the unique and relatively stable patterns of behavior, thoughts, and feelings that make individual human beings. Learn the different theoretical approaches - psychodynamic, cognitive, behavioral, humanistic, and existential – as they relate to personality and personality development. Prerequisite(s): PSYC 2301 or permission of department chair.

PSYC 3360. Sport Psychology. 3 Credit Hours.
Explore theories and research related to sports and exercise behavior. Study the history of sport psychology, behavioral principles, anxiety, motivation, leadership, group dynamics, gender, and personality. Analyze related principles to exercise and sport performance. Prerequisite(s): PSYC 2301 or permission of department chair.

PSYC 3409. Writing in Psychology. 4 Credit Hours.
(PI) Examine advanced technical communication in psychology. Study and use the current edition of the Publication Manual of the American Psychological Association for formal research reports, literature reviews, grant proposals, and professional articles. Learn to write professional psychological reports. Prerequisite(s): PSYC 2301, ENGL 1301, ENGL 1302, or permission of Department Chair.

PSYC 3430. Statistics for the Behavioral Science. 4 Credit Hours.
Study measures of central tendency, variability, and correlation. Analyze applications of statistical inference to research in Psychology, reliability and validity of psychological tests and measurement, analysis of variance, multiple analysis of variance, and regression. Lab sessions will focus on use of statistical software to organize and analyze data and to the translation of raw results of statistical analyses into written APA-style Results sections. Prerequisite(s): PSYC 2301 and MATH 1314 or MATH 1342 or PSYC 2317 or permission of department chair.

PSYC 4301. Psychological Assessment. 3 Credit Hours.
Explore principles of psychological testing. Study uses and critical evaluation of tests, achievements, intelligence, aptitude, and personalities. Prerequisite(s): PSYC 2301, PSYC 3309, and PSYC 3330, or permission of department chair.

PSYC 4302. Adaptive Psychology. 3 Credit 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(s): PSYC 2301, 6 hours of BIOL science with lab or permission of department chair.

PSYC 4303. Animal Behavior. 3 Credit Hours.
Study animal behavior research from a psychological perspective. Examine the development and display of behaviors will include subject samples ranging from insects to humans conducted in natural, quasi-experimental, and experimental studies. Prerequisite(s): PSYC 2301, 6 hours of BIOL science with lab, or permission of department chair.
PSYC 4305. Social Psychology. 3 Credit Hours. Learn theory and phenomena of social psychology. Study the effect of social variables upon the behavior of individuals. Examine socialization, language and communication, prejudice, social attitudes, attitude change, aggression, prosocial behavior, and group behavior. Prerequisite(s): PSYC 2301 and PSYC 3309 or permission of department chair.

PSYC 4310. Industrial and Organizational Psychology. 3 Credit Hours. Study 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(s): PSYC 2301 or permission of department chair.

PSYC 4315. Fundamentals of Program Evaluation. 3 Credit Hours. Study fundamentals of program evaluation methods used in the fields of education and human service. Learn theory, methodology, utilization of information, standards of practice and ethics. Prerequisite(s): PSYC 2301, PSYC 3309, and MATH 1342 or PSYC 3330; or permission of instructor.

PSYC 4320. History of Psychology. 3 Credit Hours. (WI) Analyze historical prescientific psychology in philosophy and physiology through the period of the psychological schools of thought. Prerequisite(s): PSYC 3307, PSYC 3309, PSYC 3330, PSYC 3312, PSYC 4305; or permission of department chair.

PSYC 4325. Motivation. 3 Credit Hours. Learn synthesis of theories of motivation with practical applications of motivating people, such as students or business employees. Examine historical and recent developments and their relationship to behavioral research, including concepts such as goals, work quality, work environment, and the use of rewards and other incentives. Prerequisite(s): PSYC 2301.

PSYC 4332. Psychopharmacology. 3 Credit Hours. Study neuroscientific basis of the effects of drugs on behavior. Emphasis will be placed on major antipsychotic, antianxiety, antidepressant drugs and their clinical use and side effects and drug abuse such as alcohol, marijuana, and cocaine. Prerequisite(s): PSYC 2301 and 6 hours of BIOL lab science or permission of department chair.

PSYC 4350. Forensic Psychology. 3 Credit Hours. Study forensic psychology and its relation to criminal justice. Emphasis is on social and cognitive psychology aspects like eyewitness testimony and courtroom behavior. Analyze psychological aspects of the legal system such as juvenile justice, competency to stand trial, and expert psychological testimony. Prerequisite(s): PSYC 2301.

PSYC 4384. Psychology Undergraduate Internship. 1-3 Credit Hours. Explore supervised professional activities in psychology. Major emphasis is placed on the student's involvement in successful practices in the area of interest. Students must have the approval of the Department Chair to enroll in this course.

PSYC 4388. Psychology Problems. 1-3 Credit Hours. Study of various topics related to Psychology. Engage in independent research, reading and discussions under the personal direction of the instructor, topics may vary according to student need. Entry into the course will be arranged by the department chair.

PSYC 4389. Special Topics in Psychology. 3 Credit Hours. Examine different topics each semester with a focus on contemporary issues in psychology. This course may be repeated for credit as the topic changes.

PSYC 4435. Principle Research for Behavioral Sciences. 4 Credit Hours. (WI) Study various research designs used in the behavioral sciences. Laboratory experiences will be required to acquaint the student with experimental procedures. Instruction will also be provided in writing research reports according to the APA manuscript style and SPSS statistical applications. Prerequisite(s): PSYC 3309 or ENGL 3309 and PSYC 3330 or equivalent.

PSYC 5090. Psychology Comprehensive Examination. 0 Credit Hours. Study and take the psychology examination for Non-thesis students. Register for the comprehensive examination during final semester of graduate coursework, or upon permission of advisor. All comprehensive examinations will be written, but an oral component may also be required. A maximum of three attempts will be allowed. Thesis student do not take this examination.

PSYC 5198. Psychology Thesis. 1-6 Credit Hours. Independent research course in which a student proposes and completes an original, quantitative research project in conjunction with three graduate faculty members who serve on the thesis committee. Scheduled when the student is ready to begin thesis. No credit awarded until proposal and thesis are approved, respectively. Six hours of thesis credit is required. Prerequisite(s): PSYC 5300 and PSYC 5301 and successful completion of 12 additional credit hours in the degree plan and, permission of the Chair of the thesis committee or department chair.

PSYC 5300. Behavioral Statistics. 3 Credit Hours. Study descriptive statistics with inferential statistics, correlation, one-way and two way analysis of variance, regression analysis and experimental design. Use computer software with emphasis on experience with SPSS.

PSYC 5301. Research Methods. 3 Credit Hours. Study scientific method of research, types of research and research design. Review, analyze and interpret research findings in major field and develop a research project with the assistance of their instructor. Prerequisite(s): PSYC 5300 or equivalent graduate statistics course.

PSYC 5302. Social Psychological Processes. 3 Credit Hours. Examine the individual in a social and cultural context. Learn the behavior of groups, the roles of individuals within groups, and the influence of groups on an individual's perceptions, attitudes, emotions, and behavior. Study major theories and supporting research.

PSYC 5303. Theories of Learning. 3 Credit Hours. Study major theories of learning, factors which influence the process of learning, and application of these theories and processes to general and special populations. Prerequisite(s): Admission to Graduate School or permission of department chair.

PSYC 5304. Human Development. 3 Credit Hours. Study the development of human beings from conception to death. Analyze research and theory into physical, cognitive, social, and personality development in each of the different age groups: prenatal, infancy, childhood, adolescence, and adulthood.

PSYC 5305. Research-Based Teaching and Learning. 3 Credit Hours. Review up-to-date empirical research on learning and teaching in a variety of contexts. Apply concepts to the creation of an independent research proposal. Prerequisite(s): Admission to Graduate School or permission of department chair.

PSYC 5310. Special Education Law. 3 Credit Hours. Examine the legal framework for special education in the United States. Understand federal constitutional provisions, federal and state statutes, and federal and state judicial decisions affecting special education, including the rules and regulations for the various federal and state agencies. Prerequisite(s): PSYC 5360 Foundations of School Psychology.
PSYC 5311. Culture, Minority and Gender Issues. 3 Credit Hours.
Study interaction of social/cultural groups in America, problems of minorities and ethnic groups, problems related to gender and age, problems within family systems and contemporary sources of positive change.

PSYC 5313. Crisis Intervention and Management Individual and Family. 3 Credit Hours.
Examine dynamics and treatment of situational crises in various settings. Learn theories and approaches to crisis intervention and management. Prerequisite(s): COUN 5350 or permission of department chair.

PSYC 5314. Assessment Intelligence and Achievement. 3 Credit Hours.
Study the selection, administration, and interpretation of selected tests used in the individual measurement of intelligence. Prerequisite(s): COUN 5358 and PSYC 5381, or permission of department chair. Field experience fee - $75.

PSYC 5315. Physiological Psychology. 3 Credit Hours.
Examine biological basis of behavior with an emphasis on the structure and biochemistry of the human nervous system. Explore interactive relationships between biological processes, psychopharmacology, genetics, neurological disorders, normal growth and maturation, perception, memory, emotion, stress, mental disorders, consciousness, and communication. Study of contemporary theories and research are investigated and critiqued.

PSYC 5316. Advanced Quantitative Methods and Experimental Design. 3 Credit Hours.
Learn statistical techniques to analyze quantitative data resulting from experimental research designs. Engage in a continuation of PSYC 5300 and PSYC 5301 and students are required to demonstrate proficiency in SPSS for data analysis. Review One-Way and Two-Factor ANOVA. Emphasis on ANCOVA, MANOVA, MANCOVA, multiple regression, logistic regression, data reduction techniques (factor analysis and principal components analysis), and non-parametric analyses appropriate for two- and multi-group designs. Explore the integration of multivariate and advanced statistical design with applicable research paradigms. Prerequisite(s): PSYC 5300 and PSYC 5301.

PSYC 5320. History and Systems. 3 Credit Hours.
Analyze the historical development of the science of psychology from early philosophical theories through the establishment of psychology as a science to modern theoretical positions.

PSYC 5321. Evolutionary Psychology. 3 Credit Hours.
Evaluate current theories of adaptation with a large focus on how adaptation has influenced social, cognitive and developmental processes in humans. Review and discuss evidence from cross-cultural and cross species studies.

PSYC 5322. Psychometrics. 3 Credit Hours.
Study systematic treatment of the logic of measurement, including scaling models, validity, variance and covariance, reliability, theories of measurement error, test construction. Prerequisite(s): Admission to Graduate School or permission of department chair.

PSYC 5353. Theories of Counseling. 3 Credit Hours.
Investigate personality and counseling theories with an emphasis on how theories influence practice. Special emphasis on applications to various populations, role play, other experiential methods, and related ethical concerns. Prerequisite(s): COUN 5350 or PSYC 5360 or approval of the Department Chair.

PSYC 5360. Foundations of School Psychology. 3 Credit Hours.
Study the foundations, professional standards, ethics, and laws related to the delivery of school psychological services. Prerequisite(s): Admission to graduate school or permission of department chair.

PSYC 5380. Personality Social Assessment. 3 Credit Hours.
Gain instruction and supervision in the assessment of emotional, motivational, interpersonal, and attitudinal characteristics of children and adults. Learn the administration, scoring, and interpretation of many widely-used tests. Prerequisite(s): COUN 5358 and PSYC 5381, or permission of department chair.

PSYC 5381. Assessment and Evaluation Fundamentals. 3 Credit Hours.
Examine nature and development of standardized tests, with emphasis on ethical standards, psychometric theory, test standards, and test construction. Learn selection criteria and utilization of standardized or other instruments in various environments are considered. Explore evaluations and critiques of published tests and experiential exposure to different types of psychological tests. Prerequisite(s): Admission to the Graduate School.

PSYC 5382. Behavior Management and Therapy. 3 Credit Hours.
Examine basic theories of human learning, major approaches to behavior management and therapy and principles of applied behavior analysis. Learn formal treatment planning application and evaluation of programs for management of specific behavioral/psychological problems. Study case reviews and practice in individual interventions.

PSYC 5383 Consultation and Supervision. 3 Credit Hours.
Study application of psychological principles of consultation and supervision in selected settings. Emphasis is on analysis of client and consultee/supervisor behaviors, individual and group communications, program evaluation and possible intervention options in selected environments. Prerequisite(s): COUN 5350 or PSYC 5360, and COUN 5353, or permission of department chair.

PSYC 5384. Psychology Internship I. 3 Credit Hours.
Explore supervised professional activities in psychology. Major emphasis is placed on the student's involvement in successful practices in the area of interest. Students must have met all academic and professional standards of practice before placement. Lab experiences are included. Prerequisite(s): Completion of all course work required by the degree and application for internship. Field experience fee - $75.

PSYC 5385. Psychology Internship II. 3 Credit Hours.
Explore professional activities in psychology in the student's area of interest. Major emphasis is placed on the integration of theoretical and conceptual principles, as well as professional and personal skill development. Prerequisite(s): PSYC 5383 and application for internship. Field experience fee - $75.

PSYC 5388. Psychology Problems. 1-3 Credit Hours.
Study selected problems in psychology. Engage in independent research, reading and discussions under the personal direction of the instructor, topics may vary according to student need. Prerequisite(s): graduate standing and permission of department chair.

PSYC 5389. Special Topics in Psychology. 1-3 Credit Hours.
Examine different topics each semester with a focus on contemporary issues in counseling. This course may be repeated for credit as the topic changes.
**PSYC 5391. Psychology Practicum I: Field Experience. 3 Credit Hours.**
Explore supervised experience in settings such as marriage and family, mental health, and/or counseling and guidance placements outside the University. The field experience will consist of 150 clock hours with 100 client contact hours. Prerequisite(s): COUN 5350, COUN 5353, COUN 5354, COUN 5357 and (COUN 5358 or COUN 5351), and PSYC 5381 for LPC and LPA; COUN 5350, COUN 5309, COUN 5353, COUN 5356 and COUN 5357 for LMFT; PSYC 5360, PSYC 5381, PSYC 5382, COUN 5353, COUN 5357 and COUN 5358 for LSSP; 3.0 GPA; and permission of department chair. Field experience fee - $75.

**PSYC 5392. Psychology Practicum II: Field Experience. 3 Credit Hours.**
Explore settings such as marriage and family, mental health, and/or counseling and guidance placements outside the University. The field experience will consist of 150 clock hours with 100 client contact hours. Prerequisite(s): PSYC 5391, a 3.0 GPA, and permission of department chair. Field experience fee - $75.

**PSYC 5393. Psychology Practicum III: Field Experience. 3 Credit Hours.**
Explore settings such as marriage and family, mental health, and/or counseling and guidance placements outside the University. The field experience will consist of 200 clock hours with 100 client contact hours. Prerequisite(s): PSYC 5392, a 3.0 GPA, and permission of department chair. Field experience fee - $75.
Undergraduate Minors

A minor is intended to support the major coursework and aid students in considering their program of study in an interdisciplinary manner. Although a minor is not required for most majors, students are encouraged to consider selecting a minor in consultation with their advisor and may select a maximum of two minors. Selecting an optional minor may require additional credit hours above the 120 hours required for all undergraduate degrees.

College of Arts and Sciences

Anthropology

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>ANTH 3300</td>
<td>Cultural Anthropology</td>
<td>3</td>
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<tr>
<td>ANTH 3340</td>
<td>Biological Anthropology</td>
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Upper-Level Anthropology Courses: 12

Total Credit Hours: 18

Aviation Science

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<tr>
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<tbody>
<tr>
<td>Upper-level Aviation Science electives</td>
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<tr>
<td>Any level Aviation Science electives</td>
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</table>

Total Credit Hours: 18

Biology

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<tr>
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<tr>
<td>BIOL 1407</td>
<td>Biology for Science Majors II</td>
<td>4</td>
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</table>

Select at least 14 hours from the following: 14

- BIOL 3401 Ecology
- or BIOL 3315 Advanced Physiology
- or BIOL 3318 Animal Physiology
- or BIOL 3420 Entomology
- or BIOL 3445 Comparative Vertebrate Zoology
- or BIOL 3452 Principles of Genetics
- or BIOL 4301 Conservation Biology
- or BIOL 4302 Restoration Ecology
- or BIOL 4346 Animal Behavior
- or BIOL 4470 Cell Biology
- or BIOL 4471 Molecular Biology
- or BIOL 4372 Virology
- or BIOL 4373 Immunology
- or BIOL 4475 Proteomics
- or BIOL 4380 Evolution

Total Credit Hours: 18

- i. At least 12 credit hours must be taken at A&M-Central Texas.
- ii. Lower level biology major electives are acceptable and must be approved by the Department Chair or Lead Faculty member. However, at least 6 credits must be taken at the junior/senior level.
- iii. Students must achieve a minimum “C” grade in the courses applied toward the minor.

Chemistry

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<tr>
<td>CHEM 2423</td>
<td>Organic Chemistry I (Lecture + Lab)</td>
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<tr>
<td>CHEM 2425</td>
<td>Organic Chemistry II (Lecture + Lab)</td>
<td>4</td>
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</table>

Choose 3 from the following electives: 12

- CHEM 3415 Analytical Chemistry
- CHEM 4430 Biochemistry I
- CHEM 4431 Biochemistry II
- CHEM 4415 Instrumental Analysis

Total Credit Hours: 20

- i. At least 12 credit hours must be taken at A&M University-Central Texas.
- ii. Lower level Chemistry electives are acceptable and must be approved by the Department Chair or Lead Faculty Member. However, at least 8 credits must be taken at the Upper level.
- iii. Students must achieve a minimum of “C” grade in the courses applied toward the minor.

Criminal Justice

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<tr>
<td>Upper-level Criminal Justice electives</td>
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<tr>
<td>Any level Criminal Justice electives</td>
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Total Credit Hours: 18

Drama

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<tbody>
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<td>Upper-level Drama electives</td>
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Total Credit Hours: 18

English

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<td>Upper-English electives</td>
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<td>Any level English electives</td>
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Total Credit Hours: 18

Environmental Studies

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<td>Choose from the following:</td>
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</table>

- BIOL 3401 Ecology
- BIOL 4301 Conservation Biology
- BIOL 4302 Restoration Ecology
- ENVR 1301 Environmental Science I (Lecture)
- POLI 3310 Environmental Politics
- POLI 4310 Environmental Policy
Undergraduate Minors

Interdisciplinary Film Studies

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<td>ENGL 4336</td>
<td>Film History</td>
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<tr>
<td>or ENGL 4337</td>
<td>Film Auteurs</td>
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<tr>
<td>or ENGL 4338</td>
<td>Film Genres</td>
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<tr>
<td>or ENGL 4339</td>
<td>Film Theory &amp; Criticism</td>
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<td>Select three of the following: 9</td>
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<tr>
<td>CRIJ 3345</td>
<td>Criminal Justice and Moving Images</td>
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<tr>
<td>or F A 4330</td>
<td>Fine Arts Seminar</td>
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<tr>
<td>or HIST 3361</td>
<td>History and Film</td>
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<tr>
<td>or HIST 4388</td>
<td>History Problems</td>
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<tr>
<td>or POLI 3350</td>
<td>Politics and Propaganda in Film</td>
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<tr>
<td>or SOCI 4389</td>
<td>Special Topics in Sociology</td>
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Total Credit Hours 18

Fine Arts

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<tr>
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<td>Upper-Fine Arts elective</td>
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<td>Any level Fine Arts elective</td>
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Total Credit Hours 18

Forensic Investigation

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<td>Select six of the following for 18 hours: 15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRIJ 3311</td>
<td>Techniques of Interviewing</td>
<td>3</td>
</tr>
<tr>
<td>CRIJ 3315</td>
<td>Criminal Evidence</td>
<td></td>
</tr>
<tr>
<td>CRIJ 3353</td>
<td>Biological Aspects of Forensic Science</td>
<td></td>
</tr>
<tr>
<td>CRIJ 4350</td>
<td>Advanced Investigation</td>
<td></td>
</tr>
<tr>
<td>CRIJ 4351</td>
<td>Forensic Anthropology</td>
<td></td>
</tr>
<tr>
<td>ANTH 3340</td>
<td>Biological Anthropology</td>
<td></td>
</tr>
<tr>
<td>ANTH 4330</td>
<td>Bioarcheology</td>
<td></td>
</tr>
<tr>
<td>ANTH 4340</td>
<td>Human Osteology</td>
<td></td>
</tr>
<tr>
<td>CRIJ 3352</td>
<td>Physical Aspects of Forensic Science</td>
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</tbody>
</table>

Total Credit Hours 18

Homeland Security

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select six of the following for 18 hours:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRIJ 3340</td>
<td>Homeland Security</td>
<td>15</td>
</tr>
<tr>
<td>CRIJ 3310</td>
<td>Criminal Justice Supervision and Management</td>
<td>3</td>
</tr>
<tr>
<td>CRIJ 3311</td>
<td>Techniques of Interviewing</td>
<td></td>
</tr>
<tr>
<td>CRIJ 3320</td>
<td>Policing</td>
<td></td>
</tr>
<tr>
<td>CRIJ 4312</td>
<td>Criminal Justice Ethics</td>
<td></td>
</tr>
<tr>
<td>CIS 3361</td>
<td>Introduction to Computer Forensics</td>
<td></td>
</tr>
<tr>
<td>CIS 4342</td>
<td>Computer Security Principles and Practices</td>
<td></td>
</tr>
<tr>
<td>CRIJ 4350</td>
<td>Advanced Investigation</td>
<td></td>
</tr>
<tr>
<td>MGMT 4360</td>
<td>Emergency Management</td>
<td></td>
</tr>
<tr>
<td>POLI 3320</td>
<td>Terrorism and Political Violence</td>
<td></td>
</tr>
<tr>
<td>or POLI 4320</td>
<td>Weapons of Mass Destruction</td>
<td></td>
</tr>
<tr>
<td>RELS 4320</td>
<td>Religious Terrorism</td>
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</table>

Total Credit Hours 18

Language and Linguistics

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>Select at least 12 hours from the following courses: 12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENGL 3370</td>
<td>Introduction to Linguistics</td>
<td></td>
</tr>
<tr>
<td>ENGL 3372</td>
<td>Sociolinguistics</td>
<td></td>
</tr>
<tr>
<td>ENGL 3374</td>
<td>Psycholinguistics</td>
<td></td>
</tr>
<tr>
<td>ENGL 3376</td>
<td>Discourse Analysis</td>
<td></td>
</tr>
<tr>
<td>ENGL 4378</td>
<td>History of the English Language</td>
<td></td>
</tr>
<tr>
<td>Select up to 6 hours from the following courses: 6</td>
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<td></td>
</tr>
<tr>
<td>ENGL 4311</td>
<td>History of Rhetoric</td>
<td></td>
</tr>
<tr>
<td>ENGL 4312</td>
<td>Rhetorical Criticism</td>
<td></td>
</tr>
<tr>
<td>ENGL 4313</td>
<td>Visual Rhetoric</td>
<td></td>
</tr>
<tr>
<td>ENGL 4314</td>
<td>Multicultural Rhetorics</td>
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Total Credit Hours 18

Mathematics

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>Upper-level Mathematics electives</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Any level Mathematics electives</td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

Total Credit Hours 18

Military Science

Minor in Military Science is only available to ROTC cadets.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper-level Military Science electives</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Any level Military Science electives</td>
<td>12</td>
<td></td>
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</table>

Total Credit Hours 18
### Political Science

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Upper-level Political Science electives</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Any level Political Science electives</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credit Hours</strong></td>
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### Religious Studies

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Upper-Level Religious Studies courses and/or any of the</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>following:</td>
<td></td>
</tr>
<tr>
<td>HIST 3329</td>
<td>Church and State</td>
<td></td>
</tr>
<tr>
<td>ENGL 4388</td>
<td>English Problems (Film and Religion)</td>
<td></td>
</tr>
<tr>
<td>SOCI 4304</td>
<td>Sociology of Religion</td>
<td></td>
</tr>
<tr>
<td>POLI 3355</td>
<td>Religion and Politics</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total Credit Hours</strong></td>
<td><strong>18</strong></td>
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</table>

### Sociology

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Upper-level Sociology electives</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Any level Sociology electives</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credit Hours</strong></td>
<td><strong>18</strong></td>
</tr>
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</table>

### Social Work

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Upper-level Social Work electives</td>
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</tr>
<tr>
<td></td>
<td>Any level Social Work electives</td>
<td>12</td>
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<tr>
<td></td>
<td><strong>Total Credit Hours</strong></td>
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### Visual Arts

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td></td>
<td>Upper-level ARTS electives</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credit Hours</strong></td>
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</table>

### College of Business Administration

#### Accounting

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Upper-level Accounting electives</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Any level Accounting electives</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credit Hours</strong></td>
<td><strong>18</strong></td>
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#### Business Administration

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>ACCT 2301</td>
<td>Principles of Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>or ACCT 3300</td>
<td>Accounting Concepts</td>
<td></td>
</tr>
<tr>
<td>BUSI 3311</td>
<td>Business Statistics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credit Hours</strong></td>
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</table>

### Computer Science

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COSC 3343</td>
<td>Computer Architecture</td>
<td>3</td>
</tr>
<tr>
<td>COSC 3351</td>
<td>Data Structures</td>
<td>3</td>
</tr>
<tr>
<td>COSC 4340</td>
<td>Analysis of Algorithms</td>
<td>3</td>
</tr>
<tr>
<td>CIS 3330</td>
<td>C++ Programming</td>
<td>3</td>
</tr>
<tr>
<td>or CIS 3331</td>
<td>Visual Basic Programming</td>
<td></td>
</tr>
<tr>
<td>or CIS 3332</td>
<td>Java Programming</td>
<td></td>
</tr>
<tr>
<td>CIS 3340</td>
<td>Advanced C++ Programming</td>
<td>3</td>
</tr>
<tr>
<td>or CIS 3341</td>
<td>Advanced Visual Basic Programming</td>
<td></td>
</tr>
<tr>
<td>or CIS 3342</td>
<td>Advanced Java Programming</td>
<td></td>
</tr>
<tr>
<td>or CIS 3343</td>
<td>C# Programming for Windows and the Web</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total Credit Hours</strong></td>
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### Computer Information Systems

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>CIS 3303</td>
<td>Programming Logic and Design</td>
<td>3</td>
</tr>
<tr>
<td>CIS 3330</td>
<td>C++ Programming</td>
<td>3</td>
</tr>
<tr>
<td>or CIS 3331</td>
<td>Visual Basic Programming</td>
<td></td>
</tr>
<tr>
<td>or CIS 3332</td>
<td>Java Programming</td>
<td></td>
</tr>
<tr>
<td>CIS 3347</td>
<td>Data Communications and Infrastructure</td>
<td>3</td>
</tr>
<tr>
<td>CIS 3365</td>
<td>System Analysis and Design</td>
<td>3</td>
</tr>
<tr>
<td>CIS 4301</td>
<td>Database Theory and Practices</td>
<td>3</td>
</tr>
<tr>
<td>CIS 4350</td>
<td>Management Information Systems</td>
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</tr>
<tr>
<td></td>
<td><strong>Total Credit Hours</strong></td>
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### Finance

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Upper-level Finance electives</td>
<td>6</td>
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<tr>
<td></td>
<td>Any level Finance electives</td>
<td>12</td>
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<tr>
<td></td>
<td><strong>Total Credit Hours</strong></td>
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</table>
Human Resource Management

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>BUSI 4334</td>
<td>Employment Law</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 3302</td>
<td>Personnel and Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 4303</td>
<td>Managing Compensation</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 4304</td>
<td>Recruitment and Selection of Human Resources</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 4305</td>
<td>Human Resource Development</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 4306</td>
<td>Employer and Labor Relations</td>
<td>3</td>
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</tbody>
</table>

Total Credit Hours 18

* Some courses in this minor will have prerequisites of MGMT 3301 Principles of Management and BUSI 3301 Business Communications and Research.

Management

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper-level Management electives</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Any level Management electives</td>
<td>12</td>
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</tbody>
</table>

Total Credit Hours 18

* Students seeking a BBA in Human Resource Management may not seek a Management Minor.

Marketing

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper-level Marketing electives</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Any level Marketing electives</td>
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</table>

Total Credit Hours 18

College of Education

Psychology

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper-level Psychology electives</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Any level Psychology electives</td>
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</tbody>
</table>

Total Credit Hours 18

Secondary Education Minor

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>Upper-level approved Education certification courses</td>
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</tr>
<tr>
<td>Clinical Teaching</td>
<td></td>
<td>6</td>
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</table>

Total Credit Hours 24

* Must be admitted to the Teacher Education Preparation program.
ACCT 3300. Accounting Concepts. 3 Credit Hours.
Learn 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. Used to provide for students without a previous accounting background. (Meets requirements for Accounting I.).

ACCT 3301. Analysis - Using Spreadsheets. 3 Credit Hours.
Learn theory and application of microcomputer spreadsheet technology applied in accounting, finance, management, and other business disciplines. Stimulate creative initiative and to develop basic skills in performing common business tasks. Credit for both CIS 3301 and ACCT 3301 will not be awarded. Prerequisite(s): ACCT 2301.

ACCT 3302. Cost Accounting. 3 Credit Hours.
Learn accounting for material, labor, and manufacturing expenses in both job order and process cost systems. Special emphasis will be given to distribution of service department cost and costing of byproducts and joint products. Prerequisite(s): ACCT 3300 or ACCT 2302.

ACCT 3303. Intermediate Accounting I. 3 Credit Hours.
Study the environment of accounting, development of standards, basic theory, financial statements, worksheets, and the application of generally accepted accounting principles for the business enterprise with emphasis on corporations. Prerequisite(s): ACCT 3300 or ACCT 2301 or permission of department chair.

ACCT 3304. Intermediate Accounting II. 3 Credit Hours.
Continue the study of Intermediate Accounting with a special emphasis on generally accepted accounting principles as applied to the business enterprise. Prerequisite(s): ACCT 3303 or permission of department chair.

ACCT 3305. Governmental Accounting. 3 Credit Hours.
Learn budgeting, accounting, and financial reporting principles and practices for governmental and other not-for-profit entities. Prerequisite(s): ACCT 3303 or permission of department chair.

ACCT 3307. Writing for Accountants. 3 Credit Hours.
(WI) Learn how to improve communication skills for those entering the accounting profession. Study written communication including letter writing, memos, emails, reports, employment resumes, and writing for publication. Special emphasis on organization of thought, critical thinking, and accounting research.

ACCT 3308. Managing Accounting. 3 Credit Hours.
Study the uses of accounting information by management. Accounting procedures and reports essential to management are emphasized, as are cost analysis, cost control, budgeting, and controllership. Prerequisite(s): ACCT 2301 or permission of department chair. Course cannot be counted as part of a degree program for an accounting major.

ACCT 3310. Accounting Information Systems. 3 Credit Hours.
Study the design and implementation of complex accounting information systems. Understand the traditional accounting model and its relationship to each type of accounting information system, including accounts receivable, inventory control, cost accounting, operational budgeting, and capital budgeting. Special emphasis on key elements of a well-designed management control system. Prerequisite(s): ACCT 2301.

ACCT 3387. Cooperative Education. 1-3 Credit Hours.
Integrate academic study with work experience that is relevant to a major or minor. Two-semester minimum requirement 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. Cooperative Education advisor will supervise and assign the final grades. Students may participate in the Cooperative Education but will earn only a maximum of 6 hours credit toward a degree. Prerequisite(s): 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 permission of department chair. Field experience fee $75.

ACCT 4301. Intermediate Accounting III. 3 Credit Hours.
Study financial statement analysis and accounting topics related to financial statement presentation and disclosure. Prerequisite(s): ACCT 3304 or permission of department chair.

ACCT 4303. Advanced Accounting. 3 Credit Hours.
Analyze special phases of partnership accounting, joint ventures, consignments, installment sales, statement of affairs and accounting for insolvent concerns, and business combinations. Prerequisite(s): ACCT 4301 or concurrent registration.

ACCT 4305. Federal Tax Accounting I. 3 Credit Hours.
Study current income tax law and regulations with special emphasis on income tax legislation, treasury and court decisions, departmental rulings, income tax problems and returns, social security, and self-employment taxes. Prerequisite(s): ACCT 2301 and junior standing. Credit for both ACCT 4305 and FIN 4305 will not be awarded.

ACCT 4306. Federal Tax Accounting II. 3 Credit Hours.
Continue the study of current income tax law and tax accounting procedures. Learn about preparation of income tax returns for partnerships and corporations. Prerequisite(s): ACCT 4305 or permission of department chair. Credit for both ACCT 4306 and FIN 4306 will not be awarded.
ACCT 4323. Ethics for Accountants. 3 Credit Hours.
Learn auditing and ethical responsibilities for auditors and other accountants in both public and private practice. Study generally accepted auditing standards, the standard audit report, legal responsibilities of accountants, the Code of Professional Conduct for accountants, independence, and objectivity. Special emphasis on case studies involving ethical reasoning, ethical decision making. Prerequisite(s): ACCT 3304.

ACCT 4324. Auditing. 3 Credit Hours.
Learn procedures used by auditors and accounting practitioners to gather and evaluate information and report on their findings. Special emphasis on evaluation of internal control, planning an audit or other engagement, compliance testing, substantive testing, statistical sampling, evaluation of findings, and preparation of reports. Prerequisite(s): ACCT 3304.

ACCT 4335. Financial Statement Analysis. 3 Credit Hours.
Learn the use of financial statements to analyze the position of a firm. Study analysis techniques and limitations imposed by generally accepted accounting principles. Prerequisite(s): ACCT 3303.

ACCT 4350. Management Information Systems. 3 Credit Hours.
(WI) Study management issues related to business information systems designed to meet the informational needs of the various business subsystems. Special emphasis on the concepts of systems development, security, privacy and ethics associated with information systems. Credit will be awarded for only one of the following courses: ACCT 4350, CIS 4350, or MGMT 4350. Prerequisite(s): COSC 1301 or 3 hours of Advanced CIS or ACCT 3301 or CIS 3301 and junior standing.

ACCT 4357. Accounting Theory. 3 Credit Hours.
Study of the generally accepted accounting rules and principles that govern the practical application of accounting methods. Prerequisite(s): ACCT 3303 and ACCT 3304.

ACCT 4388. Accounting Problems. 1-3 Credit Hours.
Study of selected problems in accounting. Engage in independent research, reading and discussions under the personal direction of the instructor, topics may vary according to student need. May be repeated with permission of department chair. Prerequisite(s): Senior standing and permission of department chair.

ACCT 4389. Special Topics in Accounting. 3 Credit Hours.
Study current issues and developments in accounting. Prerequisite(s): Permission of instructor.

ACCT 5090. Comprehensive Examination. 0 Credit Hours.
Study and take the accounting examination for Non-thesis students. Register for the comprehensive examination during final semester of graduate coursework, or upon permission of advisor. All comprehensive examinations will be written, but an oral component may also be required. A maximum of three attempts will be allowed. Thesis student do not take this examination.

ACCT 5300. Foundations of Accounting. 1 Credit Hour.
Learn basic knowledge of accounting necessary to begin the MBA program. Appropriate for students who have not had prior accounting courses, or who need a refresher course, prior to their MBA studies. Study the accounting process, accounting cycle, preparation of the basic financial statements in corporate annual reports, analysis of corporate financial statements using ratio analysis, the study of cost behavior, and cost-volume-profit analysis.

ACCT 5303. Accounting and Management. 3 Credit Hours.
Study accounting as related to problems of making business and economic decisions. Learn both financial and managerial accounting. MS-ACC majors may not take this course for credit. Prerequisite(s): Required accounting leveling or permission of instructor.

ACCT 5305. Accounting Theory. 3 Credit Hours.
Study the theory of accounting as it has developed in the economy of the United States. Particular emphasis is on concepts, income measurement, and valuation of assets, including valuation and measurement of equities. Application of accounting theory to contemporary problems is analyzed with cases and research papers on selected areas.

ACCT 5310. Advanced Accounting Systems. 3 Credit Hours.
Comprehensive study of computerized accounting systems. Study design, implementation, operation, control and audit techniques of accounting information.

ACCT 5315. Business Law for Accountants. 3 Credit Hours.
Study current business law topics which concern accountants in governing their practice and working with clients.

ACCT 5320. Corporate Tax. 3 Credit Hours.
Analyze formation and capital structures, partial liquidations, S Corporations, accumulated earnings tax, and personal holding companies.

ACCT 5330. Current Topics in Auditing. 3 Credit Hours.
Explore current topics in auditing.

ACCT 5335. Estate Planning. 3 Credit Hours.
Study federal estate and gift taxation, as well as advanced family tax planning. Explore issues in taxation of decedent's estate and lifetime gifts, and valuation of properties subject to gift and estate taxes.

ACCT 5340. Ethics in Accounting. 3 Credit Hours.
Study of ethics as it relates to problems in business and economic decisions. Explore integration of ethical reasoning, objectivity, independence, and other core values important for the development of a professional accountant. Analyze ethical lapses that have occurred in business and the accounting profession, with readings, problems, and cases requiring use of business and accounting data to evaluate the ethical decision process.

ACCT 5345. Financial Statement Analysis. 3 Credit Hours.
Learn an analytical approach to the application of finance and accounting principles relevant to the analysis of financial statements.

ACCT 5350. Forensic Accounting. 3 Credit Hours.
Learn the complete cycle of investigative auditing. Examine business, through study and evaluation of internal control, and corroborative evidence on the details of account balances. Explore flow-charts, test planning, use of statistical samples, computer controls and management audits. Gain experience through team performance on an extended case audit.

ACCT 5355. International Accounting. 3 Credit Hours.
Examine accounting issues unique to multinational enterprises and international business activities.

ACCT 5360. Information Technology Audit. 3 Credit Hours.
Learn controls, issues and audit techniques to explore the use of a computers as an auditing tool. Utilize generalized audit software currently used in auditing practices. Particular emphasis on computer fraud, security measures and controls in advanced online, teleprocessing systems.
ACCT 5365. Accounting Research Seminar. 3 Credit Hours.
Explore accounting topics in an online environment. Emphasis is on basic accounting research in the areas of accounting theory, accounting practice, and other accounting topics in preparation for research needs encountered in the business environment and on the CPA exam. Stimulate creative initiative in performing accounting tasks and develop basic skills necessary to effectively research accounting and other topics which may be encountered in a business environment.

ACCT 5370. Auditing Seminar. 3 Credit Hours.
Analyze current issues and research in auditing, attestation, and financial disclosures.

ACCT 5375. Tax Research Seminar. 3 Credit Hours.
Develop the technical and research skills needed to address contemporary tax issues. Study tax issues, formulate research questions and develop the research skills needed to address them. Special emphasis on major tax services, evaluating relevant authorities and communicating findings in a professionally written research memorandum, familiarization of federal tax policies and procedures, and the authorities that govern tax practice.

ACCT 5388. Accounting Problems. 1-3 Credit Hours.
Study of selected problems in accounting. Engage in independent research, reading and discussions under the personal direction of the instructor, topics may vary according to student need. Prerequisite(s): Permission of department chair.

ACCT 5389. Special Topics in Accounting. 3 Credit Hours.
Study selected accounting topics of current importance to business management. May be repeated once for credit when topics vary.

ACCT 5395. Current Topics in Accounting. 3 Credit Hours.
Explore selected topics of new or current interest in financial accounting.

Anthropology (ANTH)

ANTH 3300. Cultural Anthropology. 3 Credit Hours.
Explore culture and the different attitudes toward cultural diversity in a postmodern, global community. Special emphasis on prehistory, subsistence, economic anthropology, political anthropology, cultural eras, the rise of state societies, and kinship systems. Learn theories and methods of anthropology, and survey the history of the discipline.

ANTH 3301. Cultural Sensitivity. 3 Credit Hours.
Examines culture and its influence on human life. Explores the basic principles of cultural anthropology that leads to interpretations of different cultures. Exposes the student to the theories, data, and critical thinking skills needed to understand global humanity.

ANTH 3305. Wicca and Neo-Paganism. 3 Credit Hours.
A critical examination of Wicca and Neo-pagan groups in the US. Explores the history of such groups and exposes the student to academic research in this area.

ANTH 3310. Anthropological Theory. 3 Credit Hours.
Introduces students to anthropological theories in the following sub-disciplines: cultural anthropology, biological anthropology, archaeology, and linguistics.

ANTH 3320. Archaeology. 3 Credit Hours.
Study the history of archaeology, its theories, methods, and current techniques in site excavation. Examine archaeological cultural complexity by studying hunter-gatherer and state societies in a worldwide overview, as well as within bioarchaeology, CRM work, and NAGPRA.

ANTH 3321. Archaeological Discoveries. 3 Credit Hours.
Study the historical development of the field of archaeology through investigating the most important archaeological discoveries of the past and present. Critique hoaxes and archaeological myths and learn how archaeologists have dispelled them to develop the science of archaeology.

ANTH 3322. Archaeology of Warfare and Violence. 3 Credit Hours.
Study the complex history of warfare in different time periods and world regions with archaeological record. Explore the development of warfare in preindustrial societies, and review the current state of warfare research in archaeology. Special emphasis on the bioarchaeology of conflict.

ANTH 3340. Biological Anthropology. 3 Credit Hours.
Examines the evolutionary processes acting on human populations, through an anthropological study of human biology. Introduces nonhuman primate anatomy, primate classification and ecology, and explores the primate paleontological record. Special emphasis placed on human variation and adaptation. Materials fee $15.

ANTH 3372. Sociolinguistics. 3 Credit Hours.
Study of the relationship of language and society as shown in the following areas: language change, language variation and social class, pidgin and creole languages, and language policy and planning. This course is cross-listed with ENGL 3372; only one may be taken for credit.

ANTH 4300. Anthropological Theory. 3 Credit Hours.
Introduces students to anthropological theories in the following sub-disciplines: cultural anthropology, biological anthropology, archaeology, and linguistics.

ANTH 4310. Myth and Ritual. 3 Credit Hours.
Examine the history, beliefs, and practices of small-scale societies based on ethnographic literature. Study religious origins, shamanism, trance and other altered states, healing and bewitching, new religions, and certain treatments of the major religious traditions of Hinduism, Buddhism, Judaism, Christianity, and Islam. Cross-listed with RELS 4310; only one may be taken for credit.

ANTH 4317. Qualitative Methods. 3 Credit Hours.
Introduces methodological approaches corresponding to qualitative research methods, with special emphases on interviewing, observation techniques, ethnographic field-based methods, and content analysis. Students are encouraged to take SOCI 4316 before or in conjunction with this course.

ANTH 4320. Ancient Civilizations of Mesoamerica. 3 Credit Hours.
Explore the major pre-Columbian cultures of Mesoamerica, from Olmec to Aztec periods, with a focus on ancient Maya. Emphasis on archaeological and bioarchaeological prehistory and history of these cultures up to and beyond the point of European contact.

ANTH 4330. Bioarcheology. 3 Credit Hours.
Study archaeology and physical anthropology with the use of evidence gleaned from human skeletal remains. Focuses on the role of the human skeleton in reconstructing both the biological and cultural past of the human species.

ANTH 4340. Human Osteology. 3 Credit Hours.
Examines the human skeleton as the foundation for biological anthropological study. Introduces concepts and methods used by anthropologists to identify, describe, and analyze human skeletal remains from forensic and archaeological contexts. Materials fee $15.
ANTH 4351. Forensic Anthropology. 3 Credit Hours.
Applies the science of physical anthropology to the legal investigative process. Identifies human remains, as well as age, sex, ancestry, and stature of those remains, and how these are used to help establish positive identification. Special emphasis placed on skeletal trauma, and pathology to determine cause and manner of death. Cross-listed with CRJ 4351; only one may be taken for credit. Materials fee $15.

ANTH 4389. Special Topics in Anthropology. 3 Credit Hours.
Investigate selected topics within the field of Anthropology. May be repeated when topic varies.

ANTH 5301. Cultural Sensitivity. 3 Credit Hours.
Examines different cultures and their influences on human lives. The perspective, theories, data, and critical thinking of cultural anthropology assist the student to interpret and appreciate cultural diversity on the world stage.

ANTH 5310. Anthropology of Religion. 3 Credit Hours.
Examine and critique anthropological theories, ethnographies, and literature pertaining to the study of religious phenomena, including myth and ritual, altered states, healing, bewitching, and religious practitioners. This course is cross-listed with RELS 5310 and only one may be taken for credit.

ANTH 5351. Forensic Anthropology. 3 Credit Hours.
Gains a comprehensive understanding of the field of forensic anthropology. Reviews a diverse range of topics including age, sex, ancestry, stature, and trauma, and understands how these are used in identification and determining cause and manner of death, as well as learn to evaluate and critically analyze scientific publications within the discipline of forensic anthropology. Materials fee $15.

ANTH 5389. Special Topics in Anthropology. 3 Credit Hours.
Investigate selected topics within the field of anthropology. Students may enroll for additional credit hours when topics vary.

Arts (ARTS)

ARTS 3316. Intermediate Painting. 3 Credit Hours.
Building on previous courses in painting and other media, students investigate personal direction and sensibility utilizing various painting materials and techniques. Emphasis is placed on the relationship of intent, form and content. Repeatable to 9 semester hours. Prerequisite(s): ART 2316 or permission of the instructor.

ARTS 3323. Advanced Drawing. 3 Credit Hours.
Emphasis on experimental and individually based, expressive statements using drawing media. A variety of subjects, including the figure, will be used. Repeatable to 6 semester hours. Prerequisite(s): Prerequisites: ARTS 1316, ARTS 1317, or permission of the instructor.

ARTS 3326. Intermediate Sculpture. 3 Credit Hours.
Students will continue to employ advanced art-making strategies, with emphasis on developing informed, personal methods of communication in various three-dimensional and real-time media. Assigned projects will become increasingly complex over the semester and require students to justify the validity and place of their work within the context of contemporary art. Visits to museums, galleries, and art collections will be an important component of this class. Repeatable to 9 hours. Prerequisite(s): ARTS 2326 or permission of instructor.

ARTS 3336. Intermediate Photography. 3 Credit Hours.
This course builds on technical knowledge through the introduction of 35mm and medium film formats as well as black & white techniques and laboratory procedures. The course provides further conceptual exploration of photography as a fine art medium through projects that explore historic and contemporary genres. Students must have access to a 35mm analog (film) SLR camera. Prerequisite(s): ART 2313.

ARTS 3346. Intermediate Ceramics. 3 Credit Hours.
This course offers further exposure to ceramic forming methods, surface treatment, and firing processes that include oxidation, reduction, and raku. Increased attention will be given to the conceptual and aesthetic aspects of the ceramics medium and the development of an expressive, individual direction. Prerequisite(s): ART 2346 or permission of instructor.

ARTS 4346. Advanced Ceramics. 3 Credit Hours.
Lab Safety Training required. Advanced individual investigation of ceramic techniques and glaze formulation with emphasis on production of major professional-quality pieces. Increased emphasis is placed on critical research in contemporary and historical ceramics. Repeatable to 9 semester hours. Prerequisite(s): ARTS 3346 or permission of instructor.

ARTS 4394. Senior Project. 3 Credit Hours.
Advanced individual work in the student’s major/minor area. Preparation for the B.S. candidate’s senior exhibition or portfolio presentation. Can be repeated once for a maximum of six credit hours. *Classes may meet on a TBA schedule. Prerequisite(s): Prerequisite(s): completion of 60 hours of art and consent of instructor.

Aviation Science (AVSC)

AVSC 3300. Maintenance Department Personal and Team Leadership. 3 Credit Hours.
This course examines the personal dynamics of self-motivation, personal organization, and optimizing effective team structures and dealing with team interpersonal dynamics in an aviation maintenance facility. Prerequisite(s): Admission Requirements.

AVSC 3301. Air Carrier Operations. 3 Credit Hours.
Explore Federal Aviation Regulations relating to various specialized facets of the aviation industry, including airline operations, aircraft certification, air-worthiness standards and airport operations. Prerequisite(s): Commercial Pilot Certificate or permission of the department Chair.

AVSC 3302. Aviation Techniques of Instruction. 3 Credit Hours.
Examine the fundamentals of teaching and learning in an aviation oriented environment. Develop the techniques of instruction and the analysis of flight maneuvers, and demonstrate the theory of flight. Correlate Federal Aviation Regulations relating to the application of their flight instructor rating. Prerequisite(s): Commercial Pilot Certificate or permission of instructor.

AVSC 3303. Air Traffic Control. 3 Credit Hours.
Study FAA’s procedures for separating aircraft in the National Air Space, including the airport environment and enroute flight. Prerequisite(s): Acceptance into Professional Pilot program and Commercial Pilot Certificate or instructor approval.
AVSC 3304. Airport Management. 3 Credit Hours.
Examine requirements for developing a public airport to include local and state governmental agencies. Explore Federal aid and regulations, and the management required for the overall airport operations. Analyze tenant operators, leases, property development for non-aviation use, user taxation for airport operations, planning and policies, organization and administration, maintenance, safety and airport fuels and regulations. Prerequisite(s): Acceptance into Aviation Management or Professional Pilot program.

AVSC 3307. Aviation History. 3 Credit Hours.
(WI) Study the people and events from ancient times through the present that have influenced modern aviation internationally. Examine historical evidence and recorded documents to understand the role aviation has played in world events. Prerequisite(s): Acceptance into Aviation Management or Professional Pilot program.

AVSC 3308. Aviation History II. 3 Credit Hours.
Study the people and events from 1939 to the present that have influenced modern aviation internationally. Examine historical evidence and recorded documents to understand the role aviation has played in world events. Prerequisite(s): Junior classification.

AVSC 3310. Managing Maintenance Organizations and People. 3 Credit Hours.
Overview of the role of aviation maintenance management, and an introduction to leadership theory and practice. Includes defining of mission and goals, organizing work, and managing human performance. Prerequisite(s): Admission to program.

AVSC 3321. Airline Management. 3 Credit Hours.
Discover the behind-the-scenes activities involved in the business of airline operations. Prerequisite(s): Acceptance into Aviation Management program.

AVSC 3333. Airports and Environmental Impact. 3 Credit Hours.
Review the FAA advisory circular topics such as sustainability, solar alternative energy, environmental hazards and prevention of mishaps with an emphasis on the importance of environmental concerns in modern airports and the impact on the surrounding communities and ecosystems. Prerequisite(s): Acceptance into Aviation Management program.

AVSC 3339. Basic Ground Instructor. 3 Credit Hours.
The Basic Ground Instructor (BGI) course prepares students to take the ground instruction exam required for a sport pilot, recreational pilot, or private pilot certificate. Topics covered include aviation weather, navigation, aircraft systems and related materials to the BGI certificate. The BGI course also includes Fundamentals of Instruction (FOI) knowledge test preparation, both of which are required for licensure by the FAA. Prerequisite(s): Must be at least 18 years old.

AVSC 3350. Technical and Professional Communications for Aviation Maintenance Managers. 3 Credit Hours.
(WI) This course covers the technical communication principles and practices used in the aviation maintenance workplace. Students learn the technical writing of reports and correspondence using electronic information retrieval and presentation. Prerequisite(s): Admission to program.

AVSC 4301. Aviation Law. 3 Credit Hours.
Explore the distinctive body of statutes, treaties, regulation and case law related to general aviation. Examine specialized rules and laws that have been developed due to the distinctive nature of the airplane as a mode of transportation. Prerequisite(s): Acceptance into Aviation Management or Professional Pilot program.

AVSC 4302. Advanced Aircraft Systems. 3 Credit Hours.
Study aerodynamics, federal aviation regulations, weight, balance, and turbine systems, and their relationship with aircraft systems. Apply and operate advanced aircraft systems used by commercial pilots in air carrier operations. Prerequisite(s): Acceptance into Aviation Management or Professional Pilot program.

AVSC 4308. Aviation Safety. 3 Credit Hours.
Analyze effective procedures and techniques in the development and supervision of an Aviation Safety program. Study aircraft accident prevention, and the use of statics in aviation safety. Special emphasis on safety measures and education media materials. Prerequisite(s): Acceptance into Aviation Management or Professional Pilot program.

AVSC 4309. Aviation Security. 3 Credit Hours.
(WI) Consider the use of situational awareness, teamwork, and effective communication to recognize and thwart security threats in the aviation environment. Analyze the use of effective procedures and policies to recognize and prevent the intentional act of humans to cause harm or disruption through aviation.

AVSC 4321. Certification of Airports. 3 Credit Hours.
Discuss the requirements and procedures in seeking government approvals for airport certification as it applies to general aviation and air carrier operations. Students are advised to take a writing intensive course prior to enrolling. Prerequisite(s): AVSC 3321 and acceptance into Aviation Management program.

AVSC 4333. General Aviation and Corporate Business Aviation. 3 Credit Hours.
Study the business skills and knowledge needed to operate a small aviation business. Gain an understanding of the operational managerial aspects of general aviation and corporate business aviation.

AVSC 4344. Historical Application of Aircraft Design. 3 Credit Hours.
Study the evolution, concepts, and design aspects used in aircraft development. Construct and evaluate scale models of historical aircraft. Special emphasis on aerodynamic efficiency and aircraft manufacturing.

AVSC 4350. Aviation Seminar. 3 Credit Hours.
Explore selected topics in aviation. May be repeated for credit when topics vary. Prerequisite(s): Permission of department chair.

AVSC 4360. Aviation Maintenance Management – Global Perspective. 3 Credit Hours.
Analyzes the global aviation management field with a trend analysis differentiating the divergent methodologies of maintenance management between airlines, cultures, international law, parts acquisition and labor. Prerequisite(s): Admission to program.

AVSC 4384. Aviation Internship. 3 Credit Hours.
Experience supervised Aviation Management in a fixed base operations, regional/major airline operations or municipal airport management operations setting. Analyze management problems, develop resolution techniques, and understand customer service as an important phase of the management process. Prerequisite(s): 12 hours of upper-level aviation courses, AVSC 3304 and permission of instructor. Field assignment fee $75.

AVSC 4388. Aviation Problems. 1-3 Credit Hours.
Explore selected topics in aviation. May be repeated with permission of the department chair. Prerequisite(s): Permission of department chair.
AVSC 4395. Capstone – Professional Pilot (Crew Resource Management). 3 Credit Hours.
Practice the knowledge, skills, attitudes, and abilities attained in the program in demonstrating and utilizing Crew Resource Management (CRM), a teamwork approach to situational awareness and management. Prerequisite(s): Senior standing and acceptance in Professional Pilot program.

AVSC 4396. Capstone – Aviation Management (Emergency Preparedness). 3 Credit Hours.
Practice the knowledge, skills, attitudes, and abilities attained in the program in demonstrating emergency preparedness in simulated emergency scenarios. Prerequisite(s): Senior standing and acceptance in Aviation Management program.

Biology (BIOL)

BIOL 3315. Advanced Physiology. 3 Credit Hours.
Study human physiology at the biochemical, cellular, tissue, and organ level. Designed for upper division science and nursing majors. Prerequisite(s): BIOL 1406.

BIOL 3318. Animal Physiology. 3 Credit Hours.
Explore mammalian physiology as well as other selected vertebrate taxa. Special emphasis on organ-system physiology, and cellular and molecular mechanisms in order to present a current view of physiological principles. Highlights the nervous, muscular, cardiovascular, respiratory, renal, digestive, and endocrine physiology. Prerequisite(s): BIOL 1407.

BIOL 3380. Research Methods. 3 Credit Hours.
(WI)Explore the general principles and procedures of scientific research with an emphasis on the use of scientific literature and the methods of research. Prerequisite(s): Junior standing.

BIOL 3400. Introduction to Biology. 4 Credit Hours.
Gain an understanding of basic principles and unifying concepts in biology. Topics include scientific inquiry, basic biochemistry, cell structure and function, genetics, evolution, diversity of life, and anatomy and physiology. For non-biology majors. Laboratory sessions will provide experience with selected biological principles and practices.

BIOL 3401. Ecology. 4 Credit Hours.
(WI)Explore interactions at the organismal, population, and community level, and apply ecological theory to current environmental problems. Emphasis in the laboratory and field exercises is placed on the ecological methodology and the application of these methods. Students are required to use various statistical methods to analyze and interpret the data. Lab fee: $30. Prerequisite(s): BIOL 1407.

BIOL 3420. Entomology. 4 Credit Hours.
Explore the largest and most diverse group of animals on our planet. Examining the physiology, morphology, life histories, diversity, ecology, and evolution of insects. The laboratory focuses on the anatomy and classification of insects. Insect collection is required. Lab fee: $30. Prerequisite(s): BIOL 1407.

BIOL 3430. Botany. 4 Credit Hours.
Analyze the internal organization of plants, particularly angiosperms, with an emphasis on understanding anatomy from a structure-function standpoint. Lab fee: $30. Prerequisite(s): BIOL 1407.

BIOL 3440. Invertebrate Zoology. 4 Credit Hours.
Learn the biology, ecology, taxonomy and comparative anatomy of animals within the invertebrate phylum. Analyze live and preserved specimens in the field and laboratory. Prerequisite(s): BIOL 1407.

BIOL 3445. Comparative Vertebrate Zoology. 4 Credit Hours.
Learn the biology, ecology, taxonomy, and comparative anatomy of animals within the vertebrate phylum. Analyze live and preserved specimens in the field and laboratory. Lab fee: $30. Prerequisite(s): BIOL 1407.

BIOL 3452. Principles of Genetics. 4 Credit Hours.
Explore the mechanisms of inheritance, from bacteria to humans, as well as mutations and phenotypes, Mendelian genetics, population genetics and evolution, and complex inheritance. Lab fee: $30. Prerequisite(s) BIOL 1407.

BIOL 3471. Microbiology. 4 Credit Hours.
Introduction to modern microbiology with emphasis on prokaryotes; includes microbial cell structure, function, and physiology; genetics, evolution, and taxonomy; bacteriophages and viruses; pathogenesis and immunity; and ecology and biotechnology. The laboratory will focus on microbial growth and bacterial identification. Three hours of lecture and three hours of laboratory. Prerequisite(s): BIOL 1407.

BIOL 4301. Conservation Biology. 3 Credit Hours.
Examine conservation of biological diversity at gene, population, species, ecosystem, and global levels. Provides an overview of conservation biology including the causes and consequences of biodiversity loss, conservation approaches and strategies, and the ecological and evolutionary theory underlying these approaches. Prerequisite(s): BIOL 3401.

BIOL 4302. Restoration Ecology. 3 Credit Hours.
Explore the fundamental principles of ecological restoration. Survey the discipline, and the scientific, ethical, and philosophical underpinnings that guide ecological restoration. Principles of ecosystem ecology are introduced to provide an understanding of ecosystem processes across landscapes and within specific restoration sites. Prerequisite(s): BIOL 3401.

BIOL 4346. Animal Behavior. 3 Credit Hours.
Study vertebrate and invertebrate animal behavior. Basic topics include animal learning, mechanisms of behavior, foraging, competition, defense, aggression, sensory systems, communication, mating systems and parental care behavior. Prerequisite(s): BIOL 1407.

BIOL 4372. Virology. 3 Credit Hours.
Study viruses with an emphasis on biology, diversity, and medical importance. Focusing primarily on human and animal viruses, and the molecular and clinical aspects of virology. Prerequisite(s): BIOL 4470.

BIOL 4373. Immunology. 3 Credit Hours.
Explore the basic biological concepts of immunology. Study immunology from the viewpoints of developmental biology, molecular biology, genetics, biochemistry, microbiology, anatomy, and medicine. Prerequisite(s): BIOL 4470.

BIOL 4380. Evolution. 3 Credit Hours.
Examine evolutionary theory, including the historical development of components of evolutionary theory, population level microevolution, the fossil record, and macroevolution. Prerequisite(s): BIOL 1407 and BIOL 3452.

BIOL 4389. Special Topics in Biology. 1-3 Credit Hours.
Examine selected topics in biology. Course may be repeated for credit when topics vary. Prerequisite(s): Permission of department chair.

BIOL 4395. Biology Capstone. 3 Credit Hours.
(WI) Capstone seminar focusing on life science research conducted by seniors and faculty. Prerequisite(s): BIOL 3380 and senior standing.
BIOL 4451. Bioinformatics. 4 Credit Hours.
Study how genomic sequence and its variations affect phenotypes. Focuses on the information available from DNA sequencing projects, ranging from the sequences of individual genes to those of entire genomes. Learn analytical techniques that can be used to evaluate sequence data, and examples of their biological significance. Prerequisite(s): BIOL 4470 and BIOL 4471.

BIOL 4470. Cell Biology. 4 Credit Hours.
Study the cell at the structural, functional, and molecular levels. Emphasis is placed on the molecular mechanisms of cell metabolism, growth, division, and communication. The laboratory focuses on cell structure and laboratory techniques. Lab fee: $30. Prerequisite(s): BIOL 1407.

BIOL 4471. Molecular Biology. 4 Credit Hours.
Study modern molecular biology with an emphasis on gene structure and activity, and the biochemistry related to understanding the functions of the gene. Prerequisite(s): BIOL 1407 and BIOL 4470.

BIOL 4475. Proteomics. 4 Credit Hours.
Study the theory and practice of current techniques of protein analysis including separation, quantification, sequencing, and identification. Current research advances and case studies are also examined. Prerequisite(s): BIOL 4471.

Business (BUSI)

BUSI 3301. Business Communications and Research. 3 Credit Hours. (WI) Study and demonstrate the different types of letters and reports utilized in the modern business environment. Basic business research and APA citation skills will also be an essential component of the course, as well as presentation fundamentals. Completion of this course is recommended in the first semester of enrollment as it is a prerequisite for most business courses.

BUSI 3311. Business Statistics. 3 Credit Hours.
Study descriptive statistics and the foundations of inferential statistics, including statistical methods of sampling, classifying, analyzing, and presenting numerical data. Learn frequency and sampling distributions, averages, dispersion, hypothesis testing and analyzing up to two populations and population proportions. Additionally, students will be introduced to ANOVA, correlations, regression and Chi-Square analyses. Prerequisite(s): MATH 1324 or higher.

BUSI 3332. Legal Environment of Business. 3 Credit Hours.
The study of principles of law relating to the development and sources of law, dispute resolution, ethics, torts, intellectual property, criminal law, contracts, agency, business entity formation, and international law issues in the 21st century.

BUSI 3344. Introduction to the Global Business Environment. 3 Credit Hours.
Broad coverage of key concepts and issues in the modern global business environment. Emphasis will be placed on political, financial, cultural and regulatory effects on the operations of businesses in the global environment.

BUSI 4301. Business Ethics and Corporate Social Responsibility. 3 Credit Hours.
Examine contemporary organizational ethical issues and challenges. Analyze stakeholder management and sustainability, with emphasis on the manager's corporate social responsibilities to a wide variety of stakeholders. Study ethical dilemmas, decision-making frameworks and approaches to corporate social responsibility. Service Learning in the community is a required component. Prerequisites: BUSI 3301 and MGMT 3301.

BUSI 4320. Fundamentals of Real Estate. 3 Credit Hours.
Explore the nature of real estate and how ownership is held. Examine legal descriptions, encumbrances and liens, title transfer, title records. Analyze concepts of home ownership, buying, selling and financial real estate, closing the real estate transaction, and real estate taxes, and other issues in liens, leases and landlord tenant laws.

BUSI 4333. Business Law II. 3 Credit Hours.
Study principles of law concerning agency, employment, partnerships, corporations, bankruptcy, secured transactions, creditor/debtor rights, insurance, real and personal property. Examine laws impacting the regulatory environment of business such as consumer protection, environment, anti-trust, and securities law. Prerequisite(s): Junior standing.

BUSI 4334. Employment Law. 3 Credit Hours.
Study laws relating to employment. Explore employer-employee relationships, 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. Prerequisite(s): BUSI 3332 or MGMT 3302.

BUSI 4345. International Business Law. 3 Credit Hours.
Study international commercial business and the legal environment. Learn 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.

BUSI 4354. Global Business Practices. 3 Credit Hours.
Study basic international business concepts, cultural literacy, and discipline specific content applied to practical experiences and activities related to the visited foreign country. 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. Prerequisite(s): Junior or senior standing. BUSI 4354, MGMT 4356, or MKTG 4356 may not be taken concurrently. Field assignment fee of $75.

BUSI 4359. Business Strategy. 3 Credit Hours. (WI) Concepts and principles of accounting, economics, finance, management, marketing, and quantitative methods relevant to developing successful strategy. Examine problem solving and business decision making. Appropriate for senior business majors during their last semester. Prerequisite(s): ACCT 2301, ACCT 2302, ECON 2301, FIN 3301, BUSI 3311, MGMT 3301 and MKTG 3301. A materials fee of $45 is required for needed course materials.

BUSI 4361. General Business Seminar. 3 Credit Hours.
Study selected topics in dealing with problems or unique needs of business. Engage in independent research, reading and discussions under the personal direction of the instructor, topics may vary according to student need. May be repeated for credit as topics vary. Prerequisite(s): Permission to enroll is required.
BUSI 4363. Small Business Consulting. 3 Credit Hours.
Study selected problems in diagnosing and analyzing problems of small business clients, and prepare formal written reports and recommendations for client implementation. Engage in independent research, reading and discussions under the personal direction of the instructor. Topics may vary according to student need. Prerequisite(s): Senior standing and permission of department chair.

BUSI 4388. Business Problems. 1-3 Credit Hours.
Study selected problems in business. Engage in independent research, reading and discussions under the personal direction of the instructor. Topics may vary according to student need. May be repeated with permission of the department chair. Prerequisite(s): Senior standing and permission of department chair.

BUSI 5090. Business Comprehensive Examination. 0 Credit Hours.
Study and take the business examination for non-thesis students. Register for the comprehensive examination during final semester of graduate coursework concurrently with BUSI 5359, or upon permission of advisor. All comprehensive examinations will be written, but an oral component may also be required. A maximum of three attempts will be allowed. Thesis students do not take this examination.

BUSI 5310. Business Research Methods. 3 Credit Hours.
Study nature, scope, and significance of business research and research methodology. Develop primary research methods with applications to specific problems. Learn the place of quantitative methods in research and individual investigation, and report on current problems in a selected field of interest. Prerequisite(s): BUSI 3311 or approved leveling in statistics.

BUSI 5312. Managerial Statistics. 3 Credit Hours.
Explore applied descriptive and inferential statistical calculations. Examine statistics as a decision-making tool under uncertainty, probability, confidence intervals, hypothesis testing, ANOVA, correlation, regression, and statistical process control in the context of business and organization. Prerequisite(s): BUSI 3311 or approved leveling in statistics.

BUSI 5315. International Business Law. 3 Credit Hours.
Study international commercial business and the legal environment in which it operates. Explore 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.

BUSI 5354. Global Business Practices. 3 Credit Hours.
Study basic international business concepts, cultural literacy, and discipline specific content applied to practical experiences and activities in the visited foreign country. 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. Prerequisite(s): Admission into a COBA graduate program and permission of instructor. Field assignment fee of $75.

BUSI 5359. Business Strategy Seminar. 3 Credit Hours.
Develop an integrated view of the business functions addressed in the MBA core curriculum. Apply case analysis methodology for evaluating complex business situations, developing strategic alternatives, and recommending effective solutions. A culminating capstone interdisciplinary case study project is a required part of the course. Students must make a B on this project to pass the course and a B in the course to graduate. Prerequisite(s): ACCT 5303, FIN 5307, BUSI 5310, MGMT 5301 and MKTG 5308. A student may take one of these concurrently with the permission of the instructor. A materials fee of $45 is required for needed course materials.

BUSI 5388. Business Problems. 1-6 Credit Hours.
Study selected problems in business, and become acquainted with current research being conducted within the specific area of interest. Participate in directed reading of sources selected in concert by the student and professor. Engage in independent research, reading and discussions under the personal direction of the instructor. Topics may vary according to student need. Prerequisite(s): Permission of department chair.

Chemistry (CHEM)

CHEM 3415. Analytical Chemistry. 4 Credit Hours.
Explore the principles and applications of gravimetric and volumetric analysis. Learn the theory for selecting analytical methods and separation techniques—precipitations, extraction and complexation, sources of error, data handling, and error analysis. Lab fee: $30. Prerequisite(s): CHEM 2425 or equivalent.

CHEM 4415. Instrumental Analysis. 4 Credit Hours.
Examine chemical analysis utilizing electronic instrumentation. Learn spectroscopic techniques such as UV/VIS, molecular fluorescence, infrared, Rama, Atomic emission, atomic absorption, atomic fluorescence, NMR and mass spectrometry. Explore chromatographic and electrochemical techniques, such as ion selective electrodes, polarography, coulometry, amperometry, and conductance. Prerequisite(s): CHEM 3415 or equivalent.

CHEM 4430. Biochemistry I. 4 Credit Hours.
Study molecular components of the cell such as amino acids, proteins, enzymes, sugars, lipids, lipoproteins, nucleotides, vitamins and coenzymes. Learn energy yielding processes such as the ATP cycle, glycolysis, tricarboxylic acid cycle, the phosphogluconate pathway, redox enzymes and electron transport, oxidative phosphorylation, fatty acid metabolism, amino acid degradation and photosynthesis. First course in a two semester sequence. Lab fee: $30. Prerequisite(s): CHEM 2425 or equivalent.

CHEM 4431. Biochemistry II. 4 Credit Hours.
Study the synthesis of carbohydrates, lipids, amino acids and nucleotides, the conversion of biochemical energy into motility, membrane transport mechanisms, hormones and the regulation of DNA, protein synthesis, genes and their regulation, and systemic morphogenesis. Second course in a two semester sequence. Lab fee: $30. Prerequisite(s): CHEM 4430 or equivalent.

CHEM 4451. Bioinformatics. 4 Credit Hours.
An introduction for understanding how genomic sequence and its variations affect phenotypes. Will focus on the information available from DNA sequencing projects, ranging from the sequences of individual genes, to those of entire genomes. Students will learn analytical techniques that can be used to evaluate sequence data, and examples of the biological significance of such analyses. Prerequisite(s): BIOL 4470 and BIOL 4471.
Communications (COMM)

COMM 3301. Business & Prof Speaking. 3 Credit Hours.
A study of verbal and nonverbal communication as it functions in business and professional organizations. Special emphasis will be given to developing oral language proficiency, interviewing, small decision-making groups, oral reporting, and organizational communication.

COMM 3303. Debate. 3 Credit 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 prelaw. Prerequisite(s): SPCH 1311, SPCH 1315 or permission of department chair.

COMM 3304. Interpersonal Communication. 3 Credit 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 breakdown. A portion of the course will be devoted to exercises designed to improve interpersonal skills. Prerequisite(s): SPCH 1311 or COMM 3301 or permission of department chair.

COMM 4304. Organizational Communication. 3 Credit Hours.
An advanced study of communication as it takes place in business and industrial settings. Special attention will be given to managerial communication, communicator style, channels and networks, and organizational communication consulting. Prerequisite(s): COMM 3301.

COMM 4306. Group Process/Decision Making. 3 Credit Hours.
A study of small group theory and process. Special attention will be given to leadership, organization, group analysis, and interaction. Students will observe and participate in small group discussions on contemporary issues. Prerequisite(s): SPCH 1311 or COMM 3301 or COMM 3304 or permission of department chair.

COMM 4389. Special Topics in Communication. 3 Credit Hours.
This course provides students the opportunity to examine a topic as it relates to the interests and methodologies of communication. May be repeated when the topic varies.

COMM 5321. Essentials of Mass Media. 3 Credit Hours.
This is a study of the ascension to power of the mass media and the current devices and practices used in the creation of a culture of online, and other media-based connections. Areas of study focus on religion & denominations, individualism, intellectualism, the Internet, races and cultures, political groups, ethical practices, science, education, the culture and economy of urban areas, etc.

COMM 5322. Politics and Mass Media. 3 Credit Hours.
This course is a study of mass media and their creation of a culture of online and other media-based connections to and with politics, and includes specific groups focused on religion & denominations, individualism, intellectualism, the Internet, race and culture, politics, science, education, urban areas, etc.

COMM 5323. Social Media as Mass Media. 3 Credit Hours.
This course offers a study of mass media and the creation of online social cultures, communication networks, and of the "other" - other groups formed from religions & denominations, or based on individualism, intellectualism, the Internet, races and cultures, political groups, foods, drugs, science, education, social interaction, urban areas, etc.

COMM 5324. Religion and Mass Media. 3 Credit Hours.
This course offers a study of the media's creation of a culture of online and other mass media-based connections to and with religion, which includes a variety of religions and denominations, individualism, intellectualism, the Internet, other races and cultures, political groups, science, education, the socioeconomics of urban areas, etc.

COMM 5325. Fear Culture and Mass Media. 3 Credit Hours.
This course offers a study of mass media and its connections to the creation of a culture of fear, of the other - other religions & denominations, individualism, intellectualism, the Internet, other races and cultures, political groups, foods, drugs, science, education, urban areas, etc.

COMM 5329. Topics in Mass Media. 3 Credit Hours.
This course offers an in-depth study of particular issues within media studies. Topics will vary from year to year. A more specific course description will introduce the particular focus of a class. This course may be repeated when the topic changes.

Computer Information Systems (CIS)

CIS 3300. Computer Technology and Impact. 3 Credit Hours.
Explores computer technology with special attention to its impact on home, work, and school. Many topics are presented: hardware and software fundamentals, essential applications, telecommunications, internet, artificial intelligence, programming, and the future of these technologies. Students work with word processing, spreadsheet, database, and presentation software; other applications; and a programming language. No prior computer experience necessary.

CIS 3301. Business Analysis with Spreadsheets. 3 Credit Hours.
Examines theory and application of microcomputer technology applied in accounting, finance, management, and other business disciplines. Develops creative initiative, and study basic analytical skills in performing common business tasks. Credit for both CIS 3301 and ACCT 3301 will not be awarded.

CIS 3302. Introduction to Business Analytics. 3 Credit Hours.
Examines theory and application of business analytics applied in accounting, finance, marketing, management, and other business disciplines. Develops basic analytical skills to gain insights and make better decisions. Special emphasis on descriptive statistics, data visualization, descriptive data mining, linear regression, forecasting, optimization models, spreadsheet models, Monte Carlo simulation, and decision analysis.

CIS 3303. Programming Logic and Design. 3 Credit Hours.
This course introduces computer programming and problem solving in a structured program logic environment. Study the logic of decision-making, nested looping, multidimensional arrays, implementation of the structure theorem and Boolean algebra. Utilize structured flowcharts, structured pseudocode, hierarchy charts and decision tables, in order to document logical problem solutions. The course focuses on business problem solving and does not count as a programming language. No prior programming experience is necessary.

CIS 3304. Topics in Computer Information Systems. 3 Credit Hours.
Examines selected topics in programming languages, programming techniques, or job control languages. May be repeated once for credit as topics vary. Prerequisite(s): Varies with topic.
CIS 3305. Operating Systems Theory and Practice. 3 Credit Hours.
Study the history, development, and principles of computer operating systems and their variants in mainframe, minicomputer, server, and microcomputer application environments. Explore preferred operating systems representing various hardware environments. Special emphasis on related software issues, programming capabilities, and job control languages. Prerequisite(s): CIS 3303 or permission of department chair.

CIS 3306. Data Visualization. 3 Credit Hours.
Data visualization makes it easier to understand the data. The goal of this course is to introduce students to data visualization including both the principles and techniques. Students will learn the value of visualization, specific techniques in information visualization and scientific visualization, and how to understand how to best leverage visualization methods.

CIS 3307. Application Project with Laboratory. 3 Credit Hours.
Develop and document a software product using a formal software development process. Projects of value are actively sought from local businesses, governments, or nonprofit organizations when possible. May be repeated for credit when topics change. Prerequisite(s): Varies with topic.

CIS 3312. Technical Support Management and Operations. 3 Credit Hours.
Study the scope, significance, job skills, training, software availability, and support problems of technical support within the technology industry. Develop technical support skills, with an emphasis on the use of resources, troubleshooting, and customer relations.

CIS 3315. Web Site Development and Design. 3 Credit Hours.
This course introduces students to basic web design using HTML and CSS. The course does not require any prior knowledge of HTML or web design. Students learn how to plan and design effective web pages; implement web pages by writing HTML and CSS code; enhance web pages with the use of page layout techniques, text formatting, graphics, images, and multimedia; and produce a functional, multi-page website.

CIS 3330. C++ Programming. 3 Credit Hours.
Study structured C++ programming using microcomputers. Special emphasis on syntax, operators, functions, standard input/output, arrays, pointers, and structures in C++ programming. Prerequisite(s): COSC1309 OR COSC 1336 or CIS 3303 or concurrent enrollment or permission of department chair.

CIS 3331. Visual Basic Programming. 3 Credit Hours.
Study visual application development using Visual Basic and the native integrated development environment. Examine logic, working with forms, sequential and direct file access, and scope and visibility rules. Analyze problems within Visual Basic and develop programming solutions. Prerequisite(s): COSC1309 OR COSC 1336 or CIS 3303 or concurrent enrollment or permission of department chair.

CIS 3332. Java Programming. 3 Credit Hours.
Study applications development using Java. Examine identifiers and reserved words, objects and primitive data, program statements, arrays and vectors, exceptions and I/O streams, and graphical user interfaces. Analyze problems within Java and develop programming solutions. Prerequisite(s): COSC1309 OR COSC 1336 or CIS 3303 or concurrent enrollment or permission of department chair.

CIS 3340. Advanced C++ Programming. 3 Credit Hours.
Study C++ programming language. Examine advanced features of C++ such as classes, friends, abstraction, operator overloading, inheritance, polymorphism, templates, and object oriented programming techniques. Analyze problems within C++ and develop programming solutions. Prerequisite(s): CIS 3330 or permission of department chair.

CIS 3341. Advanced Visual Basic Programming. 3 Credit Hours.
Study Visual Basic programming techniques, including declaration and manipulation of arrays, accessing database files, and advanced data handling techniques. Analyze advanced problems in Visual Basic and develop programming solutions. Prerequisite(s): CIS 3331 or permission of department chair.

CIS 3342. Advanced Java Programming. 3 Credit Hours.
Study Java programming language. Examine advanced Java capabilities, including class features, error handling, security techniques, Java streams, JavaBeans, database connectivity, Java servlets, Java Server pages, and advanced object-oriented programming techniques. Analyze advanced Java problems and develop programming solutions. Prerequisite(s): CIS 3332 or permission of department chair.

CIS 3343. C# Programming for Windows and the Web. 3 Credit Hours.
Use C# programming language to create Windows applications in the Internet and intra-network environment. Explore object-oriented design, client-server interaction, event-driven programming, graphical user interfaces, distributed data, and distributed applications. Prerequisite(s): CIS 3350 or CIS 3331 or CIS 3332 or permission of the department chair.

CIS 3345. Topics in Personal Computer Software and Application. 3 Credit Hours.
Examine selected personal computer applications and software packages. Explore the operation and usefulness of commonly available personal computing software solutions. May be repeated once for credit as topics vary. Prerequisite(s): Varies with topic.

CIS 3346. Personal Computer Technology. 3 Credit Hours.
Examine the technology and hardware operations in microcomputers, their peripherals, and operating system software. Special emphasis on hardware configuration and selection, installation and test procedures, and routine maintenance.

CIS 3347. Data Communications and Infrastructure. 3 Credit Hours.
A study of telecommunications architecture, industry standards and communications protocols, the placement of networking devices and components, transmission media selection, logical and physical topologies, voice and data transmission, and structured cabling for local area networks (LANs) and wide area networks (WANs). Application exercises will include evaluating alternatives available in hardware, software, and transmission facilities, design integration, selection and implementation of communications and networking solutions. In addition, students will explore the current and future impact and directions of these technologies. Students will complete an architecture design project that will include required components and address services as specified in an industry specific Request for Proposal (RFP).

CIS 3348. Networking Architecture and Design. 3 Credit Hours.
Examine industry standards and communications protocols in networking. Learn placement of networking devices, transmission media selection, topologies, data transmission, and structured cabling for LANs and WANs. Develop network designs as specified in an industry specific Request for Proposal (RFP). Prepare and present a design proposal in response to an RFP and installation, configuration, testing and troubleshooting of WAN/LAN wiring interface technologies. Prerequisite(s): CIS 3347 or permission of department chair.
CIS 3351. Data Structures. 3 Credit Hours.
Study theory and applications of commonly used computer data structures, files, file organization and access methods, databases, and other storage and retrieval methods. Prerequisite(s): CIS 3340 or CIS 3341 or CIS 3342 or CIS 3343 or concurrent enrollment or permission of department chair.

CIS 3360. Ethics in Computing. 3 Credit Hours.
(WI) Examine personal and contemporary organizational ethical issues and challenges in the design, development and the use of computing technologies in a global environment. Special emphasis on the philosophical basis for computer ethics, reliability and safety of computer systems, protecting software and other intellectual property, computer crime and legal issues, and professional codes of ethics (AIS, ACM, IEEE etc.).

CIS 3361. Introduction to Computer Forensics. 3 Credit Hours.
The course focuses on clear and authoritative instructions about the field of computer forensics as it applies to the investigative process; from the collection of digital evidence to the presentation of Computer Forensic Examination findings in a court of law. Upon successful completion of the course, students will have a basic understanding of the computer forensic process, the scientific procedure involved in accounting, law enforcement, and computer sciences. Topics also include the science of computer forensics and how it relates to and is utilized within the judicial system of the United States.

CIS 3365. System Analysis and Design. 3 Credit Hours.
Examine 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. Analyze traditional and current methodologies in design, including computer aided analysis and design tools. Prerequisite(s): CIS 3330 or CIS 3331 or CIS 3332, or permission of department chair.

CIS 3387. Cooperative Education. 3 Credit Hours.
Develop and apply relevant CIS concepts in a work environment. Work in an approved professional CIS setting for approximately 300 hours before credit will be granted. To remain in the program, the student must remain in good standing with the university and employer. May be repeated once for credit. Prerequisite(s): Permission of co-op coordinator and department chair, and formal application to the program. Field experience fee $75.

CIS 3389. Special Topics in Computer Information Systems. 3 Credit Hours.
Examine selected issues, products, and technology current to computer information systems. This course may be repeated once for credit. Prerequisite(s): Varies with the topic or Permission of department chair.

CIS 4303. Data Mining. 3 Credit Hours.
Discover basic concepts, tasks, methods, and techniques in data mining, and analyze data mining problems and their solutions. Develop an understanding of the data mining process, learn various techniques for data mining, and apply the techniques in solving problems using data mining tools and systems. Prerequisite(s): CIS 3302 or CIS 4301.

CIS 4307. Topics in Networking. 3 Credit Hours.
Explore selected topics in alternative or innovative network software packages, including network focused tools, utilities, and operating systems. Special emphasis on an exploration of the usefulness and operation of the topic of study. May be repeated once for credit as topics vary. Prerequisite(s): Varies with topic.

CIS 4308. Advanced Programming Language. 3 Credit Hours.
Develop programming proficiency in a modern programming language. May be repeated as topics vary. Prerequisite(s): Varies with topic or Permission of department chair.

CIS 4309. Decision Support Methods. 3 Credit Hours.
Use computer-based decision, analysis, planning, and presentation methods in the context of management strategy and problem-solving policy. Apply software tools such as databases, spreadsheets, statistical graphics, and presentation programs for extracting, organizing and presenting information in support of management decision making. Prerequisite(s): COSC 1301 or CIS 3300, or ACCT 2302 or ACCT 2402 or MGMT 3301 or FIN 3301 or MKTG 3314 or BUSI 3311, or permission of department chair.

CIS 4310. Artificial Intelligence. 3 Credit Hours.
A study of AI programming techniques and tools. Topics include Expert Systems, Neutral Networks, Genetic Algorithms, Automatic Programming, heuristic search, and others. Prerequisite(s): CIS 3330 or CIS 3331 or CIS 3332 or permission of department chair.

CIS 4311. Android Application Development. 3 Credit Hours.
This course explores the design and development of mobile applications such as Android, including resources, user interfaces, services, alarms, maps and location based services. Prerequisite(s): CIS 3332 or Permission of Department Chair.

CIS 4335. UNIX Systems Administration. 3 Credit Hours.
Examine the underlying conceptual considerations of the UNIX operating system and its variants in mainframe, minicomputer, server and microcomputer application environments. Explore memory and process management, multi-programming and processing, interrupt structure, and parallel processing mechanisms and procedures. Special emphasis on practical application of configuration and security of selected UNIX systems. Prerequisite(s): CIS 3305 or 12 hours of CIS courses or permission of department chair.

CIS 4340. Algorithm Design and Analysis. 3 Credit Hours.
Examine computer algorithms, and learn to select appropriate algorithms for tasks within specific computing environments. Study searching and sorting algorithms for their importance in computing. Special emphasis on efficiency, readability, maintainability, advanced design and analysis techniques, advanced data structures, and graph algorithms. Prerequisite(s): CIS 3351 or concurrent enrollment or permission of department chair.
CIS 4341. Information Technology Security and Risk Management. 3 Credit Hours.
Examine the fundamental principles and topics of Information Technology Security and Risk Management at the organizational level. Learn critical security principles and best practices in order to plan, develop, and perform security tasks. Special emphasis on hardware, software, processes, communications, applications, and policies and procedures with respect to organizational IT Security and Risk Management. Prerequisite(s): 12 hours of CIS Courses or Permission of the department chair.

CIS 4342. Computer Security Principles and Practices. 3 Credit Hours.
Explore current principles, theories, and concepts behind computer security. Examine basic methods and practices of security as it affects modern business operations. Special emphasis on cryptography, authentication, access control, database security, malware, intrusion detection, firewalls, security policy and management, software and operating system security, auditing and legal aspects of cyber security. Prerequisite(s): 12 hours of CIS courses or permission of department chair.

CIS 4343. Advanced Systems and Analysis. 3 Credit Hours.
Examine data and process decomposition, and modeling in advanced systems analysis. Study the CASE tools which support models and interaction analysis of process and data. Explore the enterprise-wide view of system analysis, and understand the theory behind and the generation of normalized relational database tables. Prerequisite(s): CIS 3365 and CIS 4301 or permission of department chair.

CIS 4345. Network and Systems Security. 3 Credit 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 and networks. Areas covered include information and message security, database and file integrity, physical security, security management, security risk analysis, and encryption/cryptography. Will include practical laboratories in the analysis, and configuration of networking security protocols and tools. Prerequisite(s): CIS 3347 or approval of Department Chair. Lab fees: $95.

CIS 4346. Applied Security. 3 Credit Hours.
This course will validate and develop in-depth hands on knowledge about the operation and defense from malicious attacks. It builds on previous course work to understand rapid recovery and defense of systems from attack. Students develop knowledge about system vulnerabilities and the process of penetration of systems as a way to evaluate the security of systems. Specific topics include social engineering, malware and malicious software usage and identification, network security tool familiarization and system hardening. Prerequisite(s): CIS 3347 and (CIS 4341 or CIS 4342) or approval of department chair. Lab Fee: $95.

CIS 4348. Security Trends and Malware Analysis. 3 Credit Hours.
This course analyzes and investigates security threats and ethical hacking methods. It will introduce students to modern malware analysis techniques through a detailed examination of malware, virus, and malicious code operation by examining case studies and hands-on interactive analysis of real world samples. The course will also examine in detail current trends in the threat environment and the most current attack exploits. Student will use a variety of methods to investigate current security threats and their mitigation. Topics include malware morphology, disassembly of malware, ethical hacking methods on systems including penetration, and trends in the threat-scape. Prerequisite(s): CIS 4345 or CIS 4346 or approval of department chair. Lab fees $95.

CIS 4350. Management Information Systems. 3 Credit Hours.
Study management issues related to business information systems designed to meet the informational needs of the various business subsystems. Special emphasis on the concepts of systems development, security, privacy and ethics associated with information systems.

CIS 4351. IS Project Management. 3 Credit Hours.
This course studies the processes, methods, techniques and tools that organizations use to manage their information systems projects. The course covers a systematic methodology for initiating, planning, executing, controlling, and closing projects. This course assumes that project management in the modern organization is a complex team based activity, where various types of technologies (including project management software as well as software to support group collaboration) are an inherent part of the project management process. This course also acknowledges that project management involves both the use of resources from within the firm, as well as contracted from outside the organization. Prerequisite: Senior standing or approval of department chair.

CIS 4352. Structured Query Language. 3 Credit Hours.
Study relational database schema, formulating queries and sub-queries of varying complexity, embedding query statements in a “host” language, and defining and querying data views. Prerequisite(s): CIS 4301 or permission of department chair.

CIS 4360. Strategic Information Systems. 3 Credit Hours.
(WI) This course will explore necessary management actions, which will ensure that information is available, correct, manipulatable, protected, and archived in proper forms to allow for a strategic use of information systems in the enterprise. Throughout this course we will review a set of conceptual frameworks of IT management, and by developing a critical view of two levels of IT management – strategic and tactical. We will address the value/importance of IT from strategic and tactical perspectives, and the IT management challenges of managing people, processes and technology. Prerequisite(s): Senior Standing or CIS 4350 or Permission of Department Chair.

CIS 4375. Professional Senior Seminar. 3 Credit Hours.
Participate in professional organizations, current events, research and presentations, job market analysis, interviewing, and resume preparation, in order to prepare for the professional certification exam. Prerequisite(s): 24 hours of CIS courses.
CIS 4376. Network Administration. 3 Credit Hours.
Study communications architectures, protocols, and interfaces as related to network operating systems. Examine communications networking techniques, such as DHCP and DNS server configuration and internet working. Examine industry standards in networking. Special emphasis on installation, configuration, client handling, basic security, and troubleshooting of a network operating system. Use a modern network operating system in order to gain experience in configuration and administration of a network. Lab fee $95. Prerequisite(s): CIS 3347 or permission of department chair.

CIS 4378. Comprehensive Networking. 3 Credit Hours.
A course requiring the student to learn details of various networking protocols and engage in analyzing and designing various computer network applications. Specifically, the course will focus on the OSI and TCP/IP networking protocols, including subnetting of IP address, local area networking (LAN), wide area networking (WAN) and network analysis. This course includes hands-on exercises on various networking layer messages on live web traffic and explore them to understand overall networking process. Lab fees: $95. Prerequisite(s): CIS 3347 or permission of department chair.

CIS 4379. Software Engineering for E-Business. 3 Credit Hours.
(WI) 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. Students study a software life-cycle model, fundamental software engineering principles, and documentation standards in detail. An E-Business team project is required, which emphasizes the production of high quality software for medium and larger scale projects. Prerequisite(s): (CIS 3340 or CIS 3341 or CIS 3342) and senior standing.

CIS 4380. Software Engineering. 3 Credit Hours.
Examine the production of high quality software for medium and larger scale projects. Explore theoretical software engineering research as the basis for a practical approach to developing quality software. Special emphasis on the software life-cycle model, fundamental software engineering principles, and documentation standards in detail. Prerequisite(s): CIS 3340 or CIS 3341 or CIS 3342 or CIS 3343 and senior standing.

CIS 4384. Internship in Computer Information Systems. 3 Credit Hours.
Gain practical work experience as a programmer/programmer analyst. Apply the principles, concepts, and skills learned during the first three years of collegiate training to the field of computer information systems. May be repeated for credit. Prerequisite(s): Permission of internship coordinator or department chair. Field experience fee $75.

CIS 4388. Computer Information Systems Problems. 1-3 Credit Hours.
Explore selected topics in business on technical computer applications, practicum, field project, or other suitable computer studies. Prerequisite(s): Varies with topic or Permission of department chair.

CIS 5090. Computer Information Systems Comprehensive Examination. 0 Credit Hours.
Prepare for and take the CIS comprehensive exam. Students should take this exam in their last semester, their second to last semester, or when all the core classes have been taken. Students taking the thesis option do not need to take this exam.

CIS 5302. Object Oriented Programming. 3 Credit Hours.
This course covers the concepts of object-oriented approach to software design and development. It includes a detailed discussion of programming concepts starting with the fundamentals of data types, control structures, arrays, classes and proceeding to advanced topics such as inheritance and polymorphism, creating user interfaces, and exceptions. Upon completion of this course the students will be able to design and implement applications.

CIS 5304. Data Communications for Managers. 3 Credit Hours.
Examine 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. Upon completion of this course, the students will be able to evaluate, select, and implement different data network options.

CIS 5307. Advanced Systems Analysis and Design. 3 Credit Hours.
Examine system analysis and design processes. Students will be introduced to comparative development methodologies and modeling tools including project management and cost-benefit analysis; information systems planning and project identification and selection; requirements collection and structuring; process modeling; conceptual and logical data modeling; database design and implementation; design of the human-computer interface; system implementation; system maintenance and change management.

CIS 5311. Management Information Systems. 3 Credit Hours.
Study the management and use of information and technology as a resource to create competitive organizations, manage global operations, provide useful products and quality services. Examine intellectual property, privacy, organizational and societal impact, legal issues, ethics, security issues, decision making, strategic information systems, and organizational support systems.

CIS 5312. Technology Support Management Operations. 3 Credit Hours.
Study issues of organizing and staffing a technical support help desk. Explore the numerous management techniques and operational concepts that businesses and governmental organizations use to manage successful technical support activities. Survey the wide array of commercially available technical support software, and work with the public to deliver technical support in an operational environment.

CIS 5316. Advanced Database Management. 3 Credit Hours.
Examine the methodologies of database management including data models, database design, normalization, SQL/PLSQL, NoSQL, performance and reliability, distributed database, data dictionaries, data integrity, security, and privacy.

CIS 5318. Quantitative Concepts. 3 Credit Hours.
Examine and apply measurement techniques to information technology related problems. Use a statistical program to analyze data, and perform analyses of programs and selected algorithms.

CIS 5319. Business Intelligence Systems. 3 Credit Hours.
Examine the fundamentals of Business Intelligence including concepts, techniques and applications. Special emphasis on Decision Support Systems and other collaborative systems, Data Management, Data Mining, Data Visualization, Expert Systems and Intelligent Systems.

CIS 5320. Information Systems Seminar. 3 Credit Hours.
Explore selected topics in information systems. Topics will vary. May be repeated once for credit as topics vary.
CIS 5325. Unified Modeling Language. 3 Credit Hours.
This course covers Systems Development Life Cycle using the Unified Modeling Language (UML) in an object-oriented software system environment. Topics include modeling the elements, structure, and behaviors of object-oriented software systems using UML. Upon completion of this course, students will be able to use UML to identify objects and classes, capture requirements and define use cases, to extend and enhance visual models, and model the details of object behavior with activity and state-chart diagrams.

CIS 5344. Scripting Languages for Web Design. 3 Credit Hours.
This course is a study of Web Scripting languages and will cover many aspects of creating dynamic Web Sites using server-side and client-side scripting. It will also delve into interactions between Web Sites and a database.

CIS 5345. Extensible Markup Language. 3 Credit Hours.
Study well-formed XML and validated XML documents and the language facilities for working with hierarchical data. Describe and transform XML data to an external presentation using real world problems.

CIS 5349. Topics in Programming. 3 Credit Hours.
Develop programming proficiency in a modern programming language. Undertake multiple programming assignments to achieve necessary knowledge and skills. May be repeated once for credit as topics vary. Prerequisite(s): Varies with Topic.

CIS 5351. Information Technology Project Management. 3 Credit Hours.
Study the concepts and practices of project management and its importance to improving the success of information technology projects. Utilize project management concepts and techniques within group projects, as a project manager or active team member. Topics include techniques for planning, organizing, scheduling, and controlling information systems projects.

CIS 5353. Big Data Analytics and Management. 3 Credit Hours.
Study fundamental concepts and principles of Big Data Analytics and its role in supporting/enhancing organizational decision making and predictions. Special emphasis on Big Data, trends, challenges and applications, analytic methods, tools, technologies, infrastructure and strategies for Big Data Management, data Privacy and Ethics. Prerequisite(s): CIS 5311 or permission of department chair.

CIS 5354. Advanced Methods in Big Data Analytics. 3 Credit Hours.
Study advanced concepts and principles of Big Data Analytics and its role in supporting/enhancing organizational decision making and predictions. Special emphasis on NoSQL Databases, Hadoop Ecosystem, MapReduce, Pig, Hive, Natural Language Processing, Social Network Analysis, and Data Visualization. Prerequisite(s): CIS 5353, Java Programming or permission of department chair.

CIS 5365. Web Development. 3 Credit Hours.
Examine theory and application of the multimedia application development process. Develop the web-based authoring and scripting tools, to use in the creation of various types of web-based projects. Special emphasis on the planning, design, projection, and evaluation of interactive web-based projects for delivery through a variety of media.

CIS 5370. Foundations of Information Security. 3 Credit Hours.

CIS 5376. Network Administration and Design. 3 Credit Hours.
This course explores network design, installation planning, and preparation. Topics include installing network operating system; establishing network security and services; exploring network administration, network utilities, maintenance techniques; monitoring performance; troubleshooting and configuring the network.

CIS 5380. E-Business Application Development. 3 Credit Hours.
This course provides an in-depth knowledge of systematic approach to analyze digital markets. Upon completion of this course, students will be able to design and implement an e-business project integrating database, and scripting languages. Prerequisite: CIS 5316 or perm of Chair.

CIS 5381. Research Project with Laboratory. 3 Credit Hours.
Engage in independent study in selected topics in Information Systems. May be repeated for credit once when topics change. Prerequisite(s): Varies with topic.

CIS 5382. Research Methods in Computer Information Systems. 3 Credit Hours.
This course provides an overview of research problems and techniques in information systems. Upon completion of this course, students will be able to formulate a research question; conduct a literature survey; select appropriate research methods to answer their research questions; collect and analyze data.

CIS 5384. Computer Information Systems Internship. 3 Credit Hours.
Engage in a supervised professional experience in an information technology-related position with a public or private organization. May be repeated for a total of 6 hours credit. Prerequisite(s): 6 semester hours of CIS courses or equivalent and permission of internship coordinator or department chair. Field experience fee $75.

CIS 5388. Computer Information Systems Problems. 1-3 Credit Hours.
Study selected topics in CIS 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(s): Varies with topic.

CIS 5389. Special Topics in Computer Information Systems. 3 Credit Hours.
Study selected current topics in computer information systems. May be repeated once for credit as topics vary. Prerequisite(s): Varies with topic.

COSC 3304. Topics in Computer Science. 3 Credit Hours.
Explore selected topics in computer systems including programming languages, programming techniques, or other specialized topics. May be repeated once for credit as topics vary. Prerequisite(s): Varies with topic.

COSC 3320. Introduction to Software Engineering. 3 Credit Hours.
Study object-oriented software development process, requirements analysis, software design concepts and methodologies, object-oriented programming, and debugging. Prerequisite(s): COSC 2436 or permission of department chair.
COSC 3343. Computer Architecture. 3 Credit Hours.
Hardware and software structures found in modern digital computers. Instruction set architecture, hardwired design of the processor, assembly language programming, microprogramming, I/O and memory units, analysis of instruction usage, and hardware complexity. Prerequisite(s): COSC 2436 or CIS 3332 or CIS 3333 or permission of department chair.

COSC 3351. Data Structures. 3 Credit Hours.
Examine theory and application of commonly used computer data structures, files, file organization and access methods, databases, and other storage and retrieval methods. Prerequisite(s): A programming course in C/C++, Visual Basic, Java, or permission of department chair.

COSC 3360. Ethics in Computing. 3 Credit Hours.
(WI) Examine personal and contemporary organizational ethical issues and challenges in the design, development and use of computing technologies in a global environment. Special emphasis on philosophical basis for computer ethics, reliability and safety of computer systems, protecting software and other intellectual property, computer crime and legal issues, and professional codes of ethics such as AIS, ACM, IEEE.

COSC 3380. Operating Systems. 3 Credit Hours.
Examine the design and development of operating systems. Analyze current system software technology, including process management, memory organization, security, and file systems. Prerequisite(s): COSC 2436 or CIS 3330 or CIS 3331 or CIS 3332 or permission of department chair.

COSC 4301. Database Theory and Practices. 3 Credit Hours.
Examine database concepts and structures. Learn the file and data management principles underlying database construction. Explore fundamental types of database models, with emphasis on relational databases as well as on major non-relational forms. Gain experience in analysis, design, development, and optimization of working database applications on a variety of problems. Special emphasis on small and large system databases. Credit for both CIS 4301 and COSC 4301 will not be awarded. Prerequisite(s): 6 hours of computer science courses or permission of department chair.

COSC 4310. Artificial Intelligence. 3 Credit Hours.
A study of AI programming techniques and tools. Topics include Expert Systems, Neural Networks, Genetic Algorithms, Automatic Programming, heuristic search, and others. Prerequisite(s): CIS 3331 or CIS 3332 or CIS 3333 or permission of department chair.

COSC 4311. Android Application Development. 3 Credit Hours.
This course explores the design and development of mobile applications such as Android, including resources, user interfaces, services, alarms, maps and location based services. Prerequisite(s): CIS 3332 or permission of department chair.

COSC 4340. Analysis of Algorithms. 3 Credit Hours.
Study modern computer algorithms with emphasis on how to select the best algorithm for a task considering the specific computing environment. Examine searching and sorting algorithms for their importance in computing. Special emphasis on efficiency, readability, maintainability, advanced design and analysis techniques, advanced data structures, and graph algorithms. Prerequisite(s): COSC 3351 or concurrent enrollment or permission of department chair.

COSC 4341. Information Technology Security and Risk Management. 3 Credit Hours.
Examine the realm of information assurance and security. Study the fundamental principles, concepts, and common body knowledge of information security. Explore telecommunication and network security, software development and physical security, cryptography, security architecture, operations security, business continuity and disaster recovery planning. Understand the legal and ethical issues in technology security, and risk management.

COSC 4378. Computer Networks. 3 Credit Hours.
A course requiring the student to learn the details of various networking protocols and engage in analyzing and designing various computer network applications. Specifically, the course will focus on the OSI and TCP/IP networking protocols, including subnetting of IP address, local area networking (LAN), wide area networking (WAN) and network analysis. This course includes hands-on exercises on various networking layer messages on live web traffic and explores them to understand overall networking process. Lab fees: $95. Prerequisite(s): CIS 3347 or (COSC 2436 and MATH 2414) or permission of department chair.

COSC 4379. Software Engineering for E-Business. 3 Credit Hours.
(WI) 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. Students study a software life-cycle model, fundamental software engineering principles, and documentation standards in detail. An E-Business team project is required, which emphasizes the production of high quality software for medium and larger scale projects. Prerequisite(s): (CIS 3340 or CIS 3341 or CIS 3342) and senior standing.

COSC 4388. Computer Science Problems. 1-4 Credit Hours.
Explore selected topics in computer science. May be repeated with the permission of the department chair for additional credit when fewer than four credits have been earned. Prerequisite(s): 9 hours of COSC.

COSC 4389. Special Topics in Computer Science. 3 Credit Hours.
(WI) Explore selected topics in computer science, such as artificial intelligence, security, robotics, and human-computer interaction. May be repeated for additional credit with permission of the department chair. Prerequisite(s): 9 hours of COSC.

Counseling (COUN)

COUN 5090. Comprehensive Examination. 0 Credit Hours.
Study for and take the behavioral examination for Non-thesis students. Register for the comprehensive examination during final semester of graduate coursework, or upon permission of advisor. All comprehensive examinations will be written, but an oral component may also be required. A maximum of three attempts will be allowed. Thesis students do not take this examination.
COUN 5302. Intro to Research. 3 Credit Hours.
This is an introductory graduate-level course in research design and methods and program evaluation. It is designed to introduce the student to the fundamentals of research in education and applied behavioral sciences. That is, students will explore what research involves, the various types of research, the techniques for conducting research studies, ethical behavior in the conduct of research, and research in educational settings. Descriptive and inferential statistics will be presented in the context of the research study. Social issues related to educational research will also be presented and discussed. Prerequisite(s): None.

COUN 5304. Human Development. 3 Credit Hours.
Study the development of human beings from conception to death. Learn research and theory of physical, cognitive, social and personality development in each of the different age groups, prenatal, infancy, childhood, adolescence, and adulthood also covers related ethical concerns.

COUN 5307. Abnormal Behavior. 3 Credit Hours.
Counselors need to understand the construct of abnormal behavior is a social construction and thus may be defined differently by cultures, families and society. We will examine the theories of abnormal psychology, current research through the lens of a socio-cultural model. We will also examine social and group dynamics that can elicit abnormal behavior from “normal” people. Prerequisite(s): COUN 5350 or permission of department chair.

COUN 5309. Assessment and Treatment of Marital and Family Systems. 3 Credit Hours.
Study evaluative methods and assessment techniques as well as treatment plans and strategies for examining and treating problematic and dysfunctional marital and family systems. Emphasis is placed on case analysis, management and treatment. Prerequisite(s): COUN 5350 and COUN 5356 or permission of department chair.

COUN 5311. Multicultural Counseling. 3 Credit Hours.
Study the interaction of social/cultural groups in America, problems of minorities and ethnic groups, problems related to gender and age, problems within family systems and contemporary sources of positive change also covers related ethical concerns. Development of counseling skills and strategies based upon the special needs and characteristics of culturally and ethnically diverse clients. Prerequisite(s): None.

COUN 5313. Crisis Intervention and Management. 3 Credit Hours.
Examine the dynamics and treatment of situation crises in various settings. Study theories and approaches to crisis intervention and management. Prerequisite(s): COUN 5350 or permission of department chair.

COUN 5320. Advanced Family Systems Theory. 3 Credit Hours.
Examine theories of family systems in relation to internal functioning and the external environment, including concepts of multi-generational transmission, fusion, emotional cutoff, differentiation, family projection and triangulation among others.

COUN 5350. Foundations of Counseling. 3 Credit Hours.
Study individual and group counseling, testing career planning and placement, referral, and consultation. Examine related theories and concepts with emphasis on counseling skills, as well as history and ethical and professional issues.

COUN 5351. Career Counseling and Guidance. 3 Credit Hours.
Study career counseling and guidance services that focus on occupational, educational, and personal/social issues for general and special populations. Examine theoretical bases for career counseling and guidance, study of organization and delivery of information through individual and group activities, and related ethical concerns. Additional purchase of occupational and education information materials may be required.

COUN 5352. Foundations of Professional School Counseling. 3 Credit Hours.
This course serves as an introduction to the field of professional school counseling with emphasis on the historical and current trends in school counseling. Historical evolution from school counselor as a position to the school counselor as a mental health professional delivering a comprehensive school counseling program will be explored. Professional school counselor identity development, legal and ethical concerns in school counseling, and the comprehensive school counseling program implementation cycle is covered to foster the educational, career, social, and personal well-being of all students. Certification Fee - $150. Prerequisite(s): Admission to School Counselor program.

COUN 5353. Theories of Counseling. 3 Credit Hours.
Investigate personality and counseling theories with an emphasis on how theories influence practice. Special emphasis on applications to various populations, role play, other experiential methods, and related ethical concerns. Prerequisite(s): COUN 5350 or PSYC 5360 or approval of the Department Chair.

COUN 5354. Group Procedure for Counselors. 3 Credit Hours.
Explore group therapy and group procedures with special emphasis on the development of group counseling skills with children, adolescents, adults, special populations, and related ethical concerns while supervised. Prerequisite(s): COUN 5350 and COUN 5357 or permission of department chair.

COUN 5355. Introduction to Family Counseling. 3 Credit Hours.
Learn family systems theory as applied to the study of family dynamics, family development, and the resolution of both family and ethical concerns.

COUN 5357. Methods and Practices in Counseling. 3 Credit Hours.
Study counseling pre-interns to methodology that goes beyond building basic counseling skills and techniques. Learn the basics of professional documentation, treatment planning, legal issues related to counseling, psychological services, and basic business practices. Prerequisite(s): COUN 5350 or PSYC 5360 or approval of the Department Chair.

COUN 5358. Counseling Perspective on Psychopathology. 3 Credit Hours.
Explore psychopathology that includes the history of abnormal behavior and an in-depth study of the specific diagnostic psychological disorders. Emphasis will be on classification systems currently used in clinical settings, treatment alternatives from a counseling perspective, and related ethical concerns. Prerequisite(s): COUN 5350 or PSYC 5360 or approval of the Department Chair.

COUN 5359. Brief Therapy. 3 Credit Hours.
Explore psychopathology that includes the history of abnormal behavior and an in-depth study of the specific diagnostic psychological disorders. Emphasis will be on classification systems currently used in clinical settings, treatment alternatives from a counseling perspective, and related ethical concerns. Prerequisite(s): COUN 5350 or permission of department chair.
COUN 5363. Addictions Counseling. 3 Credit Hours.
Study addiction counseling. Special emphasis is given to models of addiction, chemical dependence, process addictions, co-dependence and related ethical concerns.

COUN 5365. Ethical Foundation of Counseling. 3 Credit Hours.
Explore ethical principles of counselors, related codes of ethics, models for ethical decision making, and how to apply them to counseling practice.

COUN 5366. Sandtray Therapy. 3 Credit Hours.
This course is designed to provide students with extensive practical experience related to Sandtray as a therapeutic intervention for children, adolescents, adults, and families. This course uses both didactic and experiential methods to enhance student's knowledge, skills and competence in using sandtray as a play therapy modality with clients. The curricula for this course include (1) knowledge of the literature of the discipline of sandtray in play therapy and (2) ongoing student engagement in professional play therapy practice. Prerequisite(s): COUN 5357.

COUN 5367. Play Therapy. 3 Credit Hours.
Students will explore the therapeutic powers of play within a counseling relationship. Enhance basic counseling skills and techniques using play as the medium of communication. Analyze the background, history, ethical concerns, and professional credentialing requirements of play therapists. Demonstrate play therapy skills and techniques with a child and participate in observation of and supervision in play therapy. Prerequisite(s): COUN 5350 Foundations of Counseling, COUN 5357 Methods and Practices of Counseling, Co-requisite COUN 5393 Practicum I: Field Experience or permission of department chair.

COUN 5381. Assessment and Evaluation Fundamentals. 3 Credit Hours.
Examine nature and development of standardized tests, with emphasis on ethical standards, psychometric theory, test standards, and test construction. Selection criteria and utilization of standardized or other instruments in various environments are considered. Analyze evaluations and critiques of published tests and experiential exposure to different types of psychological tests. Prerequisite(s): COUN 5300 or permission of department chair.

COUN 5386. Clinical Mental Health Internship. 3 Credit Hours.
Explore professional activities in counseling and become familiar with a variety of professional activities and resources. Must complete 600 clock hours, of which at least 240 are direct client contact, in no less than two semesters and no more than three semesters. Interns will receive a minimum of 1.5 hours per week of group supervision and 1 hour per week of individual/triadic supervision. Prerequisite(s): COUN 5393 and permission of Practicum/Internship Director. Field experience fee - $75.

COUN 5388. Counseling Problems. 1-3 Credit Hours.
Study of selected problems in counseling. Open to graduate students in counseling who are independently capable of developing a problem in the area of counseling and guidance. Engage in independent research, reading and discussions under the personal direction of the instructor, topics may vary according to student need.

COUN 5389. Special Topics in Counseling. 3 Credit Hours.
Examine current advanced study material on a specialized topic of interest to counseling and psychology. Explore required readings from current counseling and psychology publications and other related periodicals. Course may be repeated for credit as topics vary.

COUN 5391. School-Counseling Practicum I. 3 Credit Hours.
Explore professional activities in guidance and counseling. Major emphasis is placed on the involvement in successful practices at the educational level of interest. Students must have met all academic and professional standards of practice before placement and lab experiences are included. Prerequisite(s): COUN 5350, COUN 5351, COUN 5353, COUN 5354, COUN 5357, COUN 5352. Field experience fee - $75.

COUN 5392. School-Counseling Practicum II. 3 Credit Hours.
Experience professional activities in counseling and guidance in an area of interest. Major emphasis is placed on the integration of theoretical and conceptual principles, as well as professional and personal skill development, and related ethical concerns. Prerequisite(s): COUN 5391 and the application for internship. Field experience fee - $75.

COUN 5393. Clinical Mental Health Practicum. 3 Credit Hours.
Gain professional experience in marriage and family, mental health, and/or counseling and guidance placements in the Community Counseling and Family Therapy Center, or in placements outside the university. The field experience will consist of 100 clock hours with 40 client contact hours. Weekly individual and group supervision is included. Prerequisite(s): COUN 5350, COUN 5353, COUN 5354, COUN 5357, COUN 5358 and COUN 5365 with a B or better in each course; and consent of the practicum/internship director. Field Experience fee - $75.

Criminal Justice (CRIJ)

CRIJ 3300. Juvenile Delinquency. 3 Credit Hours.
Study the nature, extent, causation, treatment, and prevention of juvenile delinquency, including a survey of the procedures and operations of the juvenile justice agencies.

CRIJ 3301. Female Offenders. 3 Credit Hours.
Study female offenders in the criminal justice system, including historical perspectives, juvenile offenders, programming and treatment, and prison and community corrections.

CRIJ 3305. Criminology. 3 Credit Hours.
Study and critique various theories of crime causation, including an examination of classical, biological, psychological, and sociological perspectives on the etiology of crime. Maybe crosslisted with SOCI 3305. Only one may be taken for credit.

CRIJ 3310. Criminal Justice Supervision and Management. 3 Credit Hours.
Study theories and principles of supervision as applied to criminal justice agencies including organization, leadership, motivation, human resources flow, and managerial ethics. Prerequisite(s): Junior classification or permission of instructor.

CRIJ 3311. Techniques of Interviewing. 3 Credit Hours.
Study interview and interrogation techniques, including preparation, environmental and psychological factors, legal issues, and ethics.

CRIJ 3315. Criminal Evidence. 3 Credit Hours.
Analyze 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 3316. Methods of Criminal Justice Research. 3 Credit Hours.
(WI) Learn the methods of criminological and criminal justice research, with emphasis on research ethics, research design, and methods of data collection and analysis.
CRIJ 3320. Policing. 3 Credit Hours.
Examine law enforcement, and the role of police in communities and society. Learn to critically evaluate policing as a profession. Special emphasis on dispelling myths and providing tools needed to reach conclusions based upon the available research in the field of police work.

CRIJ 3325. Institutional Corrections. 3 Credit Hours.
Study the structure and function of correctional systems and how various philosophies of correctional treatment affect the operation of confinement institutions.

CRIJ 3330. Community Corrections. 3 Credit Hours.
Study the philosophy, administrative procedures, and operational techniques used in the community based treatment and supervision of offenders.

CRIJ 3340. Homeland Security. 3 Credit Hours.
Study the strategic, legal, policy, operational, and organizational issues associated with the defense of the U.S. homeland from foreign and domestic terrorist threats. Examine the 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 3345. Criminal Justice and Moving Images. 3 Credit Hours.
Explore the role of film, television, and other moving images in the development of perceptions and stereotypes of criminals, victims, and criminal justice professionals, and institutions.

CRIJ 3352. Physical Aspects of Forensic Science. 3 Credit Hours.
Examines various forensic physical sciences and their relation to crime scene investigation and the collection, preservation and identification of evidence. Introduces methods of laboratory analysis of fingerprints, firearms, tool marks, and documents, and evaluates trace evidence, such as glass, soil, paint, hairs, and fibers. Materials fee $15.

CRIJ 3353. Biological Aspects of Forensic Science. 3 Credit Hours.
Examines various forensic biological sciences and their relation to crime scene investigation and the collection, preservation and identification of evidence. Introduces methods of laboratory analysis including forensic disciplines of pathology, anthropology, odontology, entomology, toxicology, serology, DNA, and blood pattern analysis. Materials fee $15.

CRIJ 3384. Criminal Justice Field Experience. 3 Credit 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. Field experience fee $75.

CRIJ 4300. Treatment in Corrections. 3 Credit Hours.
Examines the various types of treatment provided in corrections. Students learn about treatment practices and programs used in corrections, with an emphasis on evidence-based practices. Examines research on the effectiveness of treatment programs.

CRIJ 4303. Race, Crime, and Justice. 3 Credit Hours.
Examines racial profiling, immigration, and the death penalty in the context of criminal justice practice. Provides current issues regarding the relationship between race and ethnicity and all components of the criminal justice system in the US.

CRIJ 4308. Victimology. 3 Credit Hours.
This course includes a comprehensive study of victimization, including the relationship between the victims and offenders, and their interaction with the criminal justice system.

CRIJ 4312. Criminal Justice Ethics. 3 Credit Hours.
(WI) Analyze contemporary ethical issues in crime and justice. Classical and contemporary ethical theories are applied to the discussion of such issues as discretion, corruption, use of force, racism, deception, professionalism, and the nature and meaning of justice.

CRIJ 4315. Criminal Justice Statistics. 3 Credit Hours.
Learn statistical concepts and techniques that can assist in evaluating research. Techniques include measures of central tendency, dispersion, and significance. Examine hypothesis testing using t-tests, ANOVA, and Chi square, and learn to manipulate, analyze, and interpret data using SPSS.

CRIJ 4316. Methods of Criminal Justice Research. 3 Credit Hours.
(WI) Learn the methods of criminological and criminal justice research, with emphasis on research ethics, research design, and methods of data collection and analysis.

CRIJ 4320. Criminal Justice Statistics II. 3 Credit Hours.
Learn intermediate-level statistics used in Criminal Justice research, with focus on statistical analyses commonly used in hypothesis testing with an introduction to measures of association and multivariate analyses. Prerequisite(s): CRIJ 4315 or permission of instructor.

CRIJ 4351. Forensic Anthropology. 3 Credit Hours.
Applies the science of physical anthropology to the legal investigative process. Identifies human remains, as well as age, sex, ancestry, and stature of those remains and how these are used to help establish positive identification. Special emphasis placed on skeletal trauma and pathology to determine cause and manner of death. Cross-listed with ANTH 4351; only one may be taken for credit. Material fee $15.

CRIJ 4388. Criminal Justice Problems. 3 Credit Hours.
Engage in independent reading, research, and discussion on selected criminal justice topics. Entry into this course will be arranged by the instructor.

CRIJ 4389. Special Topics in Criminal Justice. 3 Credit Hours.
Explore selected criminal justice topics. Topics will vary according to timeliness and special needs. May be taken more than once for credit.

CRIJ 4395. Criminal Justice Senior Seminar. 3 Credit Hours.
(WI) Utilize knowledge of the criminal justice system in the capstone of the criminal justice curriculum. Examine current practices related to operations, recruitment, testing, training, and law, to prepare for entry to the criminal justice profession. Prerequisite(s): CRIJ 3305, CRIJ 3310 and CRIJ 4316. Restricted to senior-year CJ majors.

CRIJ 5090. Criminal Justice Comprehensive Examination. 0 Credit Hours.
Study and integrate criminal justice knowledge in order to take the criminal justice comprehensive exam for non-thesis students. Non-thesis students should register for the comprehensive examination during their final semester of graduate coursework, or upon permission of advisor. All comprehensive examinations will be written, but an oral component may also be required. A maximum of three attempts will be allowed. Thesis students do not take this examination.
CRIJ 5198. Criminal Justice Thesis. 1-3 Credit Hours.
Prepare and write a graduate thesis in the field of criminal justice. This course represents a student's initial and continuing thesis enrollment. At least six total hours is required to complete the thesis requirement. The student continues to enroll in this course until the thesis is submitted and the thesis is successfully defended.

CRIJ 5300. Linear Regression. 3 Credit Hours.
Introduces students to statistical concepts and techniques that can assist them in evaluating research and in engaging in research on the graduate level. Both bivariate and multiple regression techniques will provide the main content of the course. Prerequisite(s): 3 hours in undergraduate or graduate statistics, or consent of instructor.

CRIJ 5301. Advanced Criminology. 3 Credit Hours.
Examine major theoretical perspectives of crime and deviance. Analyze theories for their logical and empirical adequacy in light of what is known about the distribution of crime and deviant behavior. Prerequisite(s): Undergraduate or graduate coursework in Criminology or permission of instructor.

CRIJ 5302. Criminal Justice Research Methods. 3 Credit Hours.
Study the process of research and critical analysis of research significance. Prerequisite(s): Undergraduate or Graduate course in Research Methods or permission of instructor.

CRIJ 5303. Race and Ethnicity. 3 Credit Hours.
Examine issues related to racial and ethnic minorities and crime in America, including perceptions of race, class, offending, and victimization. Emphasis on disparities in offending, victimization, law enforcement practices, trial process, and sentencing.

CRIJ 5304. Advanced Methods in Criminal Justice. 3 Credit Hours.
Study social scientific research methods applied to criminal justice research, and critically examine research designs and published findings. Includes an advanced review of procedures and techniques for research in criminology, law enforcement, courts, and corrections. Prerequisite(s): Undergraduate or Graduate course in Research Methods or permission of instructor.

CRIJ 5306. Criminal Justice Program Evaluation. 3 Credit Hours.
Learn to define program evaluation, the need for program evaluations, and the methods used to conduct evaluations.

CRIJ 5307. Homeland Security. 3 Credit Hours.
Study strategic, legal, policy, operational, and organizational issues associated with the defense of the U.S. homeland from foreign and domestic terrorist threats. Topics include legal issues in Homeland Security, effective interfacing between local, state, and federal agencies, emergency management operations, and planned response strategies. Maybe crosslisted with HLS 5307. Only one may be taken for credit.

CRIJ 5308. Victimization. 3 Credit Hours.
This course includes a comprehensive study of victimization, including the relationship between the victims and offenders, and their interaction with the criminal justice system. Students will provide a literature review on a topic of interest.

CRIJ 5309. Terrorism. 3 Credit Hours.
Examine the definitions, history, beliefs, practices, organizational structure, and conflicts involved in terrorist activities. Address funding and criminal connections with terrorist organizations, efforts at counterterrorism as well as the psychological aspects of suicide terrorism.

CRIJ 5311. Logistic Regression. 3 Credit Hours.
Introduces students to logistic regression models for estimating discrete or categorical variables. Prerequisite: 3 hours in CRIJ 5300, or consent of instructor.

CRIJ 5315. Graduate Proseminar. 3 Credit Hours.
Introduces students to the department and faculty. Emphasis placed on effective study habits and writing skills associated with research, as well as other activities/parameters that will assist the student in being successful in the program. This course is cross-listed with HLS 5315; only one may be taken for credit.

CRIJ 5321. Leadership and Supervision. 3 Credit Hours.
Examine leadership and organizational theories focused on identifying problems and solutions in criminal justice management. The case study method and current literature provide experiences on how leadership styles, human resources, and the organizational environment impact management decisions. Maybe crosslisted with HLS 5321. Only one may be taken for credit.

CRIJ 5322. Advanced Criminal Justice Ethics. 3 Credit Hours.
Study the practical implications of moral philosophy and ethics in a free society during the day-to-day administration of a criminal justice agency.

CRIJ 5388. Criminal Justice Problems. 1-3 Credit Hours.
Engage in independent reading, research, and discussion on selected criminal justice topics. Entry into this course will be arranged with the School Director. Students may repeat this course for a total of 6 hours credit when topics vary.

CRIJ 5389. Special Topics in Criminal Justice. 3 Credit Hours.
Examine selected topics related to criminal justice. This course may be repeated when topics vary, for additional course credit.

Drama (DRAM)

DRAM 3323. Acting III: Advanced Acting. 3 Credit Hours.
Advanced study of acting with emphasis on classical and modern material and professional preparation. Prerequisite(s): none.

DRAM 4310. Play Direction I. 3 Credit Hours.
Directing theory, directing history and play analysis. Emphasis on intrinsic and extrinsic interpretation as well as composition, ensemble and director-actor communication. Research and preparation for theatrical production. Prerequisite(s): none.

DRAM 4312. Play Direction II. 3 Credit Hours.
Application of research and analysis through auditioning, casting, rehearsing and producing a studio one-act play. Application of directing theory, policy and procedure. Prerequisite(s): DRAM 4310.

DRAM 4324. Acting IV: Styles in Acting. 3 Credit Hours.
DRAM 4324 – Acting IV. Styles in Acting Various acting periods in the historical genre of theatre. Exploration of period mannerisms, physicality, etiquette, social environment and behavior. Prerequisite THE 3323 • Prerequisite(s): DRAM 3323.

DRAM 4330. Theater Seminar. 3 Credit Hours.
Explore topics and issues in theater. Topics will vary. May be repeated twice for credit as topics vary. Prerequisite(s): none.

DRAM 4391. Advanced Drama Workshop Practicum. 3 Credit Hours.
Advanced experience and instruction in the theatrical production process. Prerequisite(s): none.

Economics (ECON)

ECON 3301. Intermediate Macroeconomics. 3 Credit Hours.
Study of the aggregate economy introduced in Economics 2301 with emphasis on theory. Learn the Classical and Keynesian systems, general equilibrium theories, economic growth, and public policy in a global setting. Prerequisite(s): ECON 2301.
ECON 3302. Intermediate Microeconomics. 3 Credit Hours.
Explore advanced studies of microeconomic theory. Special emphasis on consumer behavior, production and cost theory, market structure, and factor markets. Prerequisite(s): ECON 2302.

ECON 3303. Money and Banking. 3 Credit Hours.
Study 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. Credit for both FIN 3303 and ECON 3303 will not be awarded. Prerequisite(s): ECON 2301.

ECON 3304. Environmental Economics. 3 Credit Hours.
Study 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(s): 3 hours ECON.

ECON 3305. Economics in Financial Markets. 3 Credit Hours.
Study the aggregate financial system and capital markets and the impact these have on financial intermediaries. Particular emphasis on flow of funds analysis, interest rate theory, role of financial intermediaries, and management of financial assets. Credit for both FIN 3304 and ECON 3305 will not be awarded. Prerequisite(s): FIN 3301 and ECON 3303.

ECON 3306. Political Economy. 3 Credit Hours.
Study the historical, philosophical, and theoretical relationships between the state and the economy. Credit for both POLI 3306 and ECON 3306 will not be awarded. Prerequisite(s): 3 hours of ECON and 6 hours of POLI or permission of instructor.

ECON 4301. International Economics. 3 Credit Hours.
Analyze 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. Prerequisite(s): 3 hours ECON.

ECON 4302. Economic Development of the US. 3 Credit Hours.
Survey of the economic development of the United States from colonial times to the present. Credit for both ECON 4302 and HIST 4302 will not be awarded. Prerequisite(s): ECON 1301 or ECON 2301 and 6 hours HIST.

ECON 4310. Managerial Economics. 3 Credit Hours.
Study economic theory and methodology in business and administrative decision-making. Learn the tools of economic analysis and their use in formulating business policies. Particular emphasis on profits, production and cost functions, demand theory, competitive pricing policies, and business criteria for investment output and marketing decisions. Credit for both FIN 4310 and ECON 4310 will not be awarded. Prerequisite(s): FIN 3301.

ECON 4321. Development of Rural Areas. 3 Credit Hours.
Study the fundamental causes of economic decline in rural areas. Learn application of economic principles and theory to problems of rural areas. Evaluate current methods, and public programs for economic development, with special emphasis on applications of analytical methods to development problems. Prerequisite(s): ECON 2302.

ECON 4365. Intermediate Economics. 3 Credit Hours.
Discuss the American free enterprise system, the nation’s economy and its strengths and weaknesses. Examine professional journals, articles, books and reports by the government and private sources, in order to coordinate and apply the analytical knowledge acquired during the period of study. Prerequisite(s): Macroeconomics and microeconomics, college algebra or MATH 3309 or permission of instructor.

ECON 4388. Economic Problems. 1-3 Credit Hours.
Study of selected problems in economics. Engage in independent research, reading and discussions under the personal direction of the instructor, topics may vary according to student need. Entry into this course will be arranged with the Economics counselor.

ECON 5308. Managerial Economics. 3 Credit Hours.
Study economic theory and methodology to business and administrative decision-making. Utilize the tools of economic analysis to demonstrate and formulate business policies. Particular emphasis on profits, production and cost functions, demand theory, competitive pricing policies, and business criteria for investment output and marketing decisions. Credit for both FIN 5308 and ECON 5308 will not be awarded.

ECON 5359. Economic Applications Issues. 3 Credit Hours.
Examine 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.

ECON 5364. Global Commerce Seminar. 3 Credit Hours.
Focus on global competitive challenges facing business management teams. Evaluate how companies have strategically entered and developed international markets and managed global diversification. Learn to analyze international market potential, assess business risks and become familiar with institutions and national policies directing international trade.

ECON 5388. Economic Problems. 1-3 Credit Hours.
Study selected problems in economics. Engage in independent research, reading and discussions under the personal direction of the instructor, topics may vary according to student need.

Education (EDUC)

EDUC 3300. World Regional Geography for Educators. 3 Credit Hours.
Examine practices for teaching World Regional Geography. Required for a Bachelor of Science degree in Interdisciplinary Studies and for teacher certification. Must be completed before students attempt the TExES, the teacher certification exam, and before student teaching.

EDUC 3310. Theories of Learning. 3 Credit Hours.
(WI) This course examines influential learning theories and the implications of these theories for educational practice. Survey of seminal theorists and their contributions to understanding how learning occurs and how learners develop and construct meaning to acquire knowledge and skills. This course should be taken in the first block of the teacher education program. Prerequisite(s): Admission to teacher education block 1.

EDUC 3315. Literacy Instruction for Bilingual Classroom. 3 Credit Hours.
Examine knowledge and skills required to teach limited English language learners, with an emphasis on program implementation, curriculum, materials, oral language, literacy development and assessment strategies. Spanish and English will be spoken in this class. Prerequisite(s): Passing scores on the BTLPT – Spanish (Bilingual Target Language Proficiency Test) – Spanish, EDUC 3325, EDUC 3320 and READ 3311.
EDUC 3320. Professional Development in Learner Centered Schools. 3 Credit Hours.
Examine students in learner centered schools. Study lesson planning, learning styles and strengths of diverse learners, learner-centered instruction, instructional strategies, lesson plans, TEKS educational equality, and the professional standards of educators. Technology lab and documentation of field experiences are required. Certification Fee - $150.

EDUC 3325. Fundamentals of Bilingual and English as a Second Language Education. 3 Credit Hours.
Examine history, philosophies, theoretical, and legal foundations regarding Bilingual/English as a Second Language education. Learn the knowledge and skills required to teach English Language Learners, with an emphasis on instructional strategies. Prerequisite(s): EDUC 3320.

EDUC 3330. Professional Development II: Effective Instruction. 3 Credit Hours.
Examine the relationship between the state-adopted curriculum, learner-centered proficiencies, and best practices. Study lesson cycles, models of learning, instruction, uses of technology, assessment, classroom management, micro-teaching and field experience. Classroom management lab and documentation of field experiences are required. Prerequisite(s): EDUC 3320 and admission to the Teacher Education Program.

EDUC 3340. Mathematics Instruction for Classroom Teachers. 3 Credit Hours.
Study for preservice educators to plan, organize, deliver, and evaluate developmentally appropriate educational strategies and instructional techniques in teaching mathematics to diverse learners. Design responsive instruction appropriate for all learners which reflects an understanding of relevant mathematics content, promotes active engagement, and is based on continuous and appropriate assessment.

EDUC 3350. Science Instruction for Classroom Teachers. 3 Credit Hours.
Study for preservice educators to plan, organize, deliver, and evaluate developmentally appropriate educational strategies and instructional techniques in teaching science to diverse learners. Design responsive instruction appropriate for all learners which reflects an understanding of relevant science content, promotes active engagement, and is based on continuous and appropriate assessment.

EDUC 3360. The Arts for Educators. 3 Credit Hours.
This methods course is concerned with providing experience for preservice educators to plan, organize, deliver, and evaluate developmentally appropriate educational strategies and instructional techniques in teaching the arts to diverse learners. The students design responsive instruction appropriate for all learners which reflects an understanding of relevant music, art and theater content, promotes active engagement, and is based on continuous and appropriate assessment.

EDUC 3370. Instructional Strategies. 3 Credit Hours.
This course is designed to develop advanced strategies to identify readiness for learning; and to understand when and how to adjust content, process, or product in order to differentiate responsive instruction effectively. This course should be taken in the second block of the teacher education program. Certification Fee - $150. Prerequisite(s): Completion of teacher education block 1 with a minimum 2.75 GPA.

EDUC 3420. Instructional Planning and Delivery. 4 Credit Hours.
This course addresses the lesson cycle, instructional models; use of technology to enhance instruction; resources to plan, deliver and assess instruction; the role of assessment in driving instruction; Texas Essential Knowledge and Skills (TEKS) and the curricula scope and sequence. This course should be taken in the first block of the teacher education program. Prerequisite(s): Admission to teacher education block 1.

EDUC 3430. The Learner and the Learning Environment. 4 Credit Hours.
This course introduces various classroom organizational strategies, offers preservice teachers ideas for effective classroom management, and develops an understanding of the value of collaborating within the school community. The course addresses the creation of safe and supportive learning environments that foster high levels of student engagement and maximize student learning. This course should be taken in the first block of the teacher education program. Prerequisite(s): Admission to teacher education block 1.

EDUC 4304. Early Childhood Environments Professional Development III. 3 Credit Hours.
Study all aspects of classroom management, including the physical environment and use of centers for diverse groups of early elementary students. Examine current issues related to early childhood education. Demonstrate developmentally appropriate effective teaching practices in field-based setting. Prerequisite(s): Admission to the Teacher Education Program, Application for Practicum, READ 3330, EDUC 3325, EDUC 3330, EDUC 3340 and EDUC 3350; Concurrent enrollment in READ 4304, READ 4305 and EDUC 4320. Field experience fee $75.

EDUC 4305. Language Concepts and Proficiencies in a Bilingual Classroom. 3 Credit Hours.
Examine curriculum requirements as applicable to bilingual education, language concepts and proficiencies needed for teaching language arts, math, science, and social studies in bilingual classrooms. Evaluate commercial and research-based programs in order to adapt materials for students with varying degrees of language and literacy proficiency. Field experiences required. Prerequisite(s): Passing scores on the BTLPT – Spanish (Bilingual Target Language Proficiency Test-Spanish), EDUC 3325, EDUC 3315, READ 3311 and READ 3335.

EDUC 4312. Literacy Development II. 3 Credit Hours.
(WI) A field-based course surveying characteristics of the transitional/independent literacy learner, methods of instruction for writing, strategy building, comprehension, vocabulary, word identification, utilizing the Texas Essential Knowledge and Skills. Examines typical/atypical reading development and strategies for assessing/addressing reading differences in individual learners. Explores structures and features of expository text including examination of supports and challenges within the text.

EDUC 4315. Elementary Curriculum, Assessment and Instruction. 3 Credit Hours.
Implement assessment-driven instruction and curricular design in interdisciplinary contexts. Apply knowledge of developmental stages, learner needs, and the stated expectations of TEKS in the core content areas to design, implement, and evaluate an interdisciplinary curriculum. Study effective teaching practices, problem based learning and technology applications. Pre-requisites EDUC 3320, EDUC 3330 and concurrent enrollment in EDUC 4304, READ 4304 and READ 4305.

EDUC 4317. Assessment & Interpretation for Secondary Teachers. 3 Credit Hours.
This course is for students seeking a secondary certification to examine technology driven design and implementation of data-driven instruction to include the implementation of effective assessments, student data collection, analysis, interpretation, and communication aligned to learning goals for a diverse student population. The objective of this course if for the secondary pre-service teachers to be able to demonstrate the ability to effectively collect, analyze and communicate student data for continuous teaching and learning for diverse students. Prerequisite(s): Admittance into the Teacher Education Program. Field Experience required. Field Experience Fee: $25.
EDUC 4320. Integrated Social Studies Methods, EC-8. 3 Credit Hours.
This methods course is concerned with providing experience for
preservice educators to plan, organize, deliver, and evaluate
developmentally appropriate educational strategies and instructional
techniques in teaching Social Studies through the integration of English
Language Arts and Fine Arts. It correlates social studies content with the
National Council of Social Studies Strands and disciplines and the Texas
Essential Knowledge and Skills. This course should be taken in the third
block of the teacher education program. Prerequisite(s): Prerequisite:
Admission to teacher education program.

EDUC 4325. History for Educators. 3 Credit Hours.
This methods course is concerned with providing experience for pre-
service educators to plan, organize, deliver, and evaluate developmentally
appropriate educational strategies and instructional techniques in
teaching US, Texas and world history to diverse learners. The students
design responsive instruction appropriate for all learners which
reflects an understanding of relevant history content, promotes active
gagement, and is based on continuous and appropriate assessment.

EDUC 4330. Professional Development III. 3 Credit Hours.
Field-based and practicum experiences are required in school settings,
where students plan units of instruction, examine various models of
instruction, analyze classroom management strategies, and demonstrate
competencies in effective teaching practices. Prerequisite(s): Admission
to the Teacher Education Program, EDUC 3330 and READ 3335. Field
experience fee - $75.

EDUC 4331. Curriculum & Instruction for Secondary Teachers. 3 Credit
Hours.
The course will study lesson planning, lesson cycles, learning styles
and strengths of diverse learners. Additionally, teacher candidates
will explore learner-centered instruction and strategies, brain-based
learning, cooperative learning, assessment, classroom management,
integration of technology, and the state-adopted curriculum (TEKS). The
teacher candidates will examine the relationship between the state-
adopted curriculum, learner-centered proficiency, and best practices.
Field experiences 25 hours are required as well as $25 field experience
fee. Additionally, a fee of $150 is due for certification. Prerequisite(s):
Admission to the Teacher Education Program.

EDUC 4332. Classroom Management for Secondary Teachers. 3 Credit
Hours.
This course provides secondary educators with knowledge and skills
to create safe, supportive, and respectful learning environments.
Students will analyze classroom management strategies and examine
various modes of instruction. An analysis of legal and ethical issues
as they relate to the classroom are an important component of the
course. Secondary students will have field-based experience based on
in-school settings. Admittance into the Teacher Education Program.
Prerequisite(s): Admission into the Teacher Education Program. Field
Experience required. Field Experience Fee: $25.

EDUC 4335. Capstone for Educators. 3 Credit Hours.
Capstone is a culminating course designed for teacher candidates
to synthesize their knowledge across the program through the
development of artifacts that demonstrate effective integration of
content understanding and pedagogical skills. The teacher candidates
will analyze student learning and reflect on their teaching effectiveness
in order to facilitate learning for all students. Prerequisite(s): Admission
to the Teacher Education Program, successful completion of Content
Certification Examination, and concurrent enrollment in Clinical Teaching
(EDUC 4691).

EDUC 4337. Educating Secondary Exceptional Learners. 3 Credit Hours.
This course provides instruction in the historical, philosophical, and legal
foundations of exceptional education as related to current issues and
practices in educational settings. It comprises issues and trends that
include transition – related instruction, postsecondary programs, and
adaptability to and in secondary classrooms. Teacher candidates will
develop an awareness of legal aspects of exceptional education as well
as needs and services specific to students with specific needs in the
secondary classroom. Prerequisite(s): Field experience required. Field
experience fee $25.

EDUC 4340. Technology Application and Integration for Classroom
Teachers. 3 Credit Hours.
Study for preservice educators to plan, organize, deliver, and evaluate
instruction for diverse learners through the effective use and
integration of current technology. Use of technology for ethical and
professional communication with colleagues, community, and students.
Prerequisite(s): Admission to Clinical Teaching; successful completion
designated content area Texas Examination of Educator Standards
(TExES); concurrent enrollment in EDUC 4691 and EDUC 4335 or
permission of department chair.

EDUC 4345. Mathematics & Science Methods in the Elementary
Classroom. 3 Credit Hours.
This purpose of this course is to help preservice teachers discover how
elementary children think and learn about mathematics. Examines
the curriculum foundations and instructional methods for elementary
mathematics. Building upon previous mathematical knowledge, and
with a focus on supporting high quality mathematics education, this
course provides resources and opportunities for experience with a
number of instructional strategies and manipulatives. Science instruction
focuses on the methods, materials and approaches for teaching science,
including developmentally appropriate introductions to the physical,
earth and life sciences. This course should be taken in the third block of
the teacher education program. Prerequisite(s): Admission to teacher
education program.

EDUC 4384. Classroom Teaching Internship. 3 Credit Hours.
Explore 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.
May be repeated for credit. Prerequisite(s): Admission to the Teacher
Education Program. Field experience fee - $75.

EDUC 4388. Education Problems. 1-3 Credit Hours.
Study of selected problems in education. Engage in independent
research, reading and discussions under the personal direction of the
instructor; topics may vary according to student need. Prerequisite(s):
Junior or senior standing, admission to the Teacher Education Program
and permission of Curriculum and Instruction Program Coordinator.

EDUC 4484. Field Experience. 4 Credit Hours.
Supervised field-based experiences in public school classrooms. Major
emphasis is placed on the identification and exploration of instructional
strategies, the learning environment, and professional practices designed
to prepare for clinical teaching. This course should be taken in the third
block of the teacher education program. Field experience fee $75.00
Prerequisite(s): Admission to teacher education program.
EDUC 4691. Clinical Teaching. 6 Credit Hours.
Explore supervised clinical teaching in the public schools at the appropriate level (1-18). A demonstration of proficiency in the application of effective teaching practices and classroom management strategies is required. Prerequisite(s): Admission to Clinical Teaching and the successful completion of designated content area of the Texas Examination of Educator Standards (TExES); Concurrent enrollment in EDUC 4335 and EDUC 4340*, or permission of department chair. * 7-12 math students may take MATH 3315 in place of EDUC 4340. Field experience fee - $75.

EDUC 5090. Education Comprehensive Examination. 0 Credit Hours.
Study and take the education examination for Non-thesis students. Register for the comprehensive examination during final semester of graduate coursework, or upon permission of advisor. All comprehensive examinations will be written, but an oral component may also be required. A maximum of three attempts will be allowed. Thesis student do not take this examination.

EDUC 5198. Education Thesis. 1-6 Credit Hours.
Independent research course in which a student proposes and completes an original, quantitative research project. Scheduled when the student is ready to begin thesis. No credit awarded until proposal and thesis are complete. Prerequisite(s): Completion of all other coursework required for the degree and consent of the major professor or permission of department chair.

EDUC 5300. Foundations and History of Education. 3 Credit Hours.
Examine history of education in the United States through a study of the philosophical, historical, psychological and social foundations of curriculum. Emphasis is on the development of a philosophy of education and critical thinking about issues in education. Students must complete this course within the first twelve semester hour of graduate study.

EDUC 5301. Readings in Professional Development. 3 Credit Hours.
Examine current issues in the professional development of educators. Study 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. Cultural Diversity in Schools and Community. 3 Credit Hours.
Examine various dimensions of culture related to teaching, learning, and support services in the community. Study ethnicity, socio-economic status, language, gender, religion, age, and exceptionality.

EDUC 5304. Human Development. 3 Credit Hours.
Analyze human behavior with emphasis on the child, adolescent, and adult learner. Develop insight and social and cultural forces in the formation of personality, the self, and roles in group membership.

EDUC 5306. Adult Education. 3 Credit Hours.
Examine philosophy and concepts of adult education including the role of the adult educator, setting of objectives, integration of adult learning with career goals or changes and assessment of educational needs of adults.

EDUC 5311. Methods of Effective Teaching. 3 Credit Hours.
Study research on effective teaching practices with an emphasis on direct instruction. Learn mastery learning, assessment of learning and use of assessment to guide instruction. Apply technology and effective teaching practices to the design and delivery of instruction. Technology lab is required. Certification Fee - $150.

EDUC 5312. Language and Social Studies Seminar. 3 Credit Hours.
Learn to teach Social Studies through the application of the writing process, reading/writing connections, and children's literature. Prerequisite(s): 18 hours of professional education course work.

EDUC 5314. Creating and Managing Learning Environment. 3 Credit Hours.
Learn to create and maintain a positive learning environment. Study cultural dimensions of classroom management, motivating student achievement, fostering cooperation among students, reinforcing appropriate behavior, and ethics and law governing teacher-student relations. Apply teaching and classroom management practices in a clinical laboratory setting.

EDUC 5322. Teaching Mathematics and Science. 3 Credit Hours.
Study 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. 3 Credit Hours.
Study early childhood education curriculum and practices. Examine current trends in early childhood curriculum with an emphasis on the modifications needed to ensure the success of all young children. Prerequisite(s): 18 hours of professional educational course work.

EDUC 5338. Curriculum Design and Implementation. 3 Credit Hours.
Examine curriculum selection, design, implementation, and evaluation processes within the classroom and school district settings. Study factors that influence curriculum decision-making processes and a review of theories of curriculum development. Major emphasis on curriculum alignment and curriculum auditing.

EDUC 5340. Evidence Based Teaching. 3 Credit Hours.
In this course, participants will learn about various instructional strategies to enhance learning experiences in education. The class will cover appropriate methods and techniques from basic principles of learning and brain-based/whole-brain techniques. The course will also foster 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 5345. Advanced Instructional Strategies for Diverse Learners. 3 Credit Hours.
Study appropriate methods and techniques from basic principles of learning. Develop 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 and Interpretation for Education Leaders. 3 Credit Hours.
Examine 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 Programs. 3 Credit Hours.
Study 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.
Study 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.
Study theories and models of creativity. Emphasis will be given to identifying the creative potential of students in all classrooms. Examine and develop instructional processes which accommodate the needs of creative learners. Prerequisite(s): EDUC 5360.
EDUC 5364. Curriculum and Material Development For Gifted Learners. 3 Credit Hours.
Study a comparison of regular and gifted curricula with a focus on developing an interdisciplinary curriculum for gifted learners. Examine and evaluate existing materials and equipment which support instruction for the gifted in both regular and special programs. Emphasis will be on developing and evaluating teacher constructed materials. Prerequisite(s): EDUC 5360.

EDUC 5366. Instruction and Evaluation For Gifted Learners. 3 Credit Hours.
Analyze methods of determining specific learning styles and talents, with emphasis placed on implementing appropriate instruction for programs. Learn methods and tools of informal and formal evaluation and assessment. Prerequisite(s): EDUC 5360 and EDUC 5364.

EDUC 5369. Education Seminar. 1-3 Credit 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 5370. Techniques of Research. 3 Credit Hours.
Explore fundamental concepts and tools of research applied to psychological and educational problems. Study rationale of research, analysis of problems, library skills, sampling, appraisal instruments, statistical description and inference, writing the research report, and representative research designs.

EDUC 5384. Teaching Internship. 3 Credit Hours.
Gain field-based experience in classroom teaching. Interns must demonstrate proficiency in applying effective teaching practices and classroom management strategies in a school classroom. Prerequisite(s): admission to a teacher certification program; satisfactory performance in the professional development courses preceding the internship. May be repeated for credit. Field experience fee - $75 or Internship fee - $1500 (effective fall 2016).

EDUC 5385. Teaching Internship II. 3 Credit Hours.
Explore a 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(s): Admission to a teacher certification program at TAMU-CT; satisfactory performance in the professional development courses preceding the internship; Second semester Prerequisite(s): EDUC 5384. Field experience fee - $75 or Internship fee - $1500 (effective fall 2016).

EDUC 5388. Special Education Problems. 1-6 Credit Hours.
Study of selected problems in special education. Engage in independent research, reading and discussions under the personal direction of the instructor, topics may vary according to student need. Open to graduate students who are capable of developing a problem independently. Prerequisite(s): Graduate major in Education.

EDUC 5389. Special Topics In Education. 3 Credit Hours.
Examine 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 course may be repeated for credit as topic changes. Prerequisite(s): Permission of instructor.

EDUC 5391. Gifted Education Practicum. 3 Credit Hours.
Supervise 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. Prerequisite(s): Successful completion of EDUC 5360, EDUC 5362, EDUC 5364 and EDUC 5366.

Educational Leadership (EDLD)

EDLD 5090. Educational Leadership Comprehensive Examination. 0 Credit Hours.
Study for and take the educational leadership exam for non-thesis students. Non-thesis students should register for the comprehensive examination during their final semester of graduate coursework, or upon permission of advisor. All comprehensive examinations will be written, but an oral component may also be required. A maximum of three attempts will be allowed. Thesis students do not take this examination.

EDLD 5198. Educational Leadership Thesis. 1-6 Credit Hours.
Prepare for and write the educational leadership thesis for graduate students. Scheduled when the student is ready to begin the thesis. No credit until the thesis is completed. Prerequisite(s): Completion of all other coursework required for the degree and consent of the major professor or permission of department chair.

EDLD 5300. Foundations of Educational Leadership. 3 Credit Hours.
Study lenses of power, influence, ethics, and leadership theory. Compare personal diagnoses of leadership, learning, and personality strengths to the knowledge and skill set needed for leadership of prek-12 schools. Prerequisite(s): Approval of program coordinator.

EDLD 5301. Research in Educational Leadership. 3 Credit Hours.
Study the fundamentals of research with emphasis on research terminology, design, methodology, data collection, ethics, psychometric measurement qualities, and quantitative and qualitative research paradigms. Develop research and evaluation skills necessary to become critical consumers and producers of research in prek-12 schools. Advancing Educational Leadership (AEL), a state-required teacher appraiser certification course, is included. $100 AEL certificate fee. Prerequisite(s): Approval of program coordinator.

EDLD 5307. Leadership of Human Resources. 3 Credit Hours.
Examine supervision and evaluation of faculty and staff in prek-12 schools. Study effective supervisory and evaluation approaches for the development of a continuous improvement learning culture for faculty and staff. The Texas Teacher Evaluation and Support System (T-TESS), a state-required teacher appraiser certification course, is included. $100 T-TESS certificate fee. Prerequisite(s): Admission to program and approval of program coordinator.

EDLD 5309. Legal Issues in School Leadership. 3 Credit Hours.
Explore legal issues impacting the administration of prek-12 schools. Understand the ethical application of legal principles found in relevant constitutional, statutory, administrative, and case law. Learn how these laws and principles determine operation, organization, and administration of prek-12 schools. Special emphasis is placed on the relationship of state and federal law. Prerequisite(s): Admission to program and approval of program coordinator.

EDLD 5310. Special Educational Law. 3 Credit Hours.
Examine the legal framework for special education in the United States. Understand federal constitutional provisions, federal and state statutes, and federal and state judicial decisions affecting special education, including the rules and regulations for the various federal and state agencies.
EDLD 5316. Leadership of Effective Instruction. 3 Credit Hours.
The study of effective teaching and learning practices. Develop effective instructional practice in prek-12 schools with use of data analysis, research-based instructional strategies, special programs support, technology integration, and teacher collaboration. Special emphasis on maintaining a continuous improvement cycle to ensure equity and engagement of all students. Prerequisite(s): Admission to program and approval of program coordinator.

EDLD 5317. Public School Finance and Fiscal Management. 3 Credit Hours.
Study the principles of school finance, budgeting, and accounting procedures used in school districts. Special emphasis is placed on the development of a working knowledge of the history of school finance, current and emerging financial issues, litigation, budget development, fiscal policy, and accountability. Prerequisite(s): EDLD 5318 and EDLD 5336 or permission of department chair. Certification Fee: $150.

EDLD 5318. Administrative Law and Personnel Administration. 3 Credit 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, induction, and recordkeeping. Prerequisite(s): Superintendent Certificate Program admission or permission of department chair.

EDLD 5319. The School Superintendency. 3 Credit Hours.
Examine the roles and responsibilities of the chief school administrator. Emphasis is placed on the range of leadership skills that executive leadership utilize to work with the community, school board, professional staff, and students in development of a capacity-building culture and district vision. Prerequisite(s): EDLD 5318 and EDLD 5336 or permission of department chair.

EDLD 5335. Educational Planning and Resource Development. 3 Credit Hours.
Develop a sustainable leadership process and examine the role of leadership in educational planning. Study strategic planning and the use of district's major administrative systems and resources to fulfill organizational goals. Prerequisite(s): EDLD 5317, EDLD 5318, EDLD 5319 and EDLD 5338 or permission of department chair.

EDLD 5336. Instructional Development and School Improvement. 3 Credit Hours.
Examine state policy affecting instructional improvement on public school campuses. Special emphasis is placed on results-based accountability systems. Explore curriculum planning and evaluation, professional development, student assessment, and data analysis utilized to develop and sustain a learning system that meets the needs of all students. Prerequisite(s): Superintendent Certificate Program admission or permission of department chair.

EDLD 5339. Processes of Educational Leadership. 3 Credit Hours.
Study effective organizational processes in prek-12 schools. Special emphasis on learning organization strategies, exemplary leadership practices, and collaborative action tools, in order to support the development of a flexible and creative culture continuously engaged in school improvement. Certification fee: $150. Prerequisite(s): Admission to program and approval of program coordinator.

EDLD 5342. Leadership of Campus Resources. 3 Credit Hours.
The study of school resources in support of school improvement. In addition, candidates will study effective supervisory and evaluation approaches for the development of a continuous improvement learning culture for faculty and staff. An integrated continuous improvement system supported by optimal allocation of financial, human, technological, facility, time, and other campus resources provides the focus for development of a safe and engaging school learning environment. The purpose of this course is to provide aspiring principals with the opportunity to apply their program learning as they build skill in organizing the development, implementation, monitoring, and evaluation of continuous school improvement. An integrated continuous improvement system – the School Portfolio – supported by optimal allocation of financial, human, technological, facility, time, and other campus resources provides the focus for development of a safe and engaging school learning environment. Prerequisite(s): Admission to program and approval of program coordinator.

EDLD 5340. School-Community Relationships. 3 Credit Hours.
Systems of interpretation of schools to community publics. Promotion of effective school-community relations through media of communication.

EDLD 5345. Leadership of Learning Systems. 3 Credit Hours.
Study learning systems in prek-12 schools. Develop and implement coherent processes that are responsive to unique student needs, establish a culture of high expectations and continuous improvement, align academic standards across grade levels and subject areas, and ensure academic success and social-emotional well-being for each student. Prerequisite(s): Admission to program and approval of program coordinator.

EDLD 5355. Leadership of Diverse Learning Communities. 3 Credit Hours.
Study diverse prek-12 school communities with an emphasis on ethical issues dealing with leadership, governance, and policy development. Develop processes for identifying and ameliorating issues associated with demographic and cultural differences. Learn to facilitate internal and external community engagement to achieve equity and excellence within the school system. Prerequisite(s): Admission to program and approval of program coordinator.

EDLD 5360. Educational Leadership Applications. 3 Credit Hours.
Apply leadership theory to campus leadership practice. Analyze critical issues in school leadership through the integration of the roles of the principal with professional experience. Master's degree comprehensive exam and state principal certification exam/performance assessment preparation are included. Prerequisite(s): Admission to program and approval of program coordinator. Important Note: All students enrolled in EDLD 5360 must enroll in EDLD 5090 Comprehensive Exam zero-credit hour course.

EDLD 5388. Problems. 1-3 Credit 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. Prerequisite(s): Full admission into the Office of Graduate Studies and a graduate degree or certification program.

EDLD 5389. Special Topics In Educ Admin. 3 Credit 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.
EDLD 5391. Superintendent Practicum. 3 Credit Hours.
Demonstrate competent professional practice through supervised activities in the culminating experience for the Superintendent Certificate Program. Implement an action plan for professional growth and school district improvement based on state standards and leadership practices. For satisfactory completion of practicum requirements, course may be repeated one time. Only 3 semester hours of coursework can be used to satisfy certification requirements. Field experience fee - $75. Prerequisite(s): EDLD 5317, EDLD 5318 and EDLD 5319 or permission of program coordinator.

EDLD 5392. Principalship Practicum 1. 3 Credit Hours.
The Principalship Practicum 1 course is delivered the first semester of the two-semester practicum experience. Candidates in the course will demonstrate competent professional practice through supervised activities in the culminating experience for the MEd/Principal Certificate program. Candidates will also implement an action plan for professional growth and school improvement based on state standards and leadership practices. For satisfactory completion of practicum requirements, course may be repeated one time. Field experience fee - $75. Prerequisite(s): Admission into program and approval of program coordinator.

EDLD 5393. Principalship Practicum 2. 3 Credit Hours.
The Principalship Practicum 2 course is delivered the second semester of the two-semester practicum experience. Candidates in the course will demonstrate competent professional practice through supervised activities in the culminating experience for the MEd/Principal Certificate program. Candidates will also implement an action plan for professional growth and school improvement based on state standards and leadership practices. For satisfactory completion of practicum requirements, course may be repeated one time. Field experience fee - $75. Prerequisite(s): Admission into program and approval of program coordinator.

EDTE 3300. Desktop Publishing in Classroom. 3 Credit Hours.
Explore applications relating to digital graphics, printing techniques, animation products, and editing tools used in desktop publishing. Analyze K-12 Technology Applications Texas Essential Knowledge and Skills (TEKS) and create a variety of desktop publishing products for use in future classrooms.

EDTE 3305. Multimedia in the Classroom. 3 Credit Hours.
An application of multimedia, graphics, and animation tools used for teaching Technology Applications. Students will apply appropriate techniques and strategies to create lesson plans and examples for use in the classroom. Prerequisite(s): EDTE 3300.

EDTE 3315. Teacher Technology Application. 3 Credit Hours.
Explore field based opportunities in area schools for students to observe technology applications teachers at all levels (EC-12) and explore computer lab management in K-12 learning environments. Prerequisite(s): EDTE 3305 and EDUC 3320.

EDTE 4300. Video in the Classroom. 3 Credit Hours.
Learn to teach video, graphics, and animation in K-12 Technology Applications classes. Apply tools and techniques for integrated video technology to enhance the learning environment and prepare exemplar videos and lesson plans for future classroom use. Prerequisite(s): EDTE 3315, EDUC 3320 and admission to Teacher Education Program.

EDTE 4305. Web Mastering. 3 Credit Hours.
Explore and use Web technology in educational settings. Study appropriate technologies and techniques to plan and implement Web based instructional products for use in the K-12 classroom. Create lesson plans and exemplar products appropriate for teaching Technology Applications in Web mastering. Prerequisite(s): EDTE 4300 and EDUC 3330.

EDTE 4310. Learning, Leading and Assessment. 3 Credit Hours.
Study K-12 learning outcomes, data analysis, instructional decision making, and mentoring skills necessary for peer support. Apply tools for enhancing professional growth and productivity and use technology in communicating, collaborating, conducting research, and solving problems that typically arise in learning environments. Prerequisite(s): EDUC 3330.

EDTE 4388. Educational Technology Problems. 1-3 Credit Hours.
Study of selected problems in educational technology. Engage in independent research, reading and discussions under the personal direction of the instructor, topics may vary according to student need. Open to students of Junior or senior standing who have been admitted to the Teacher Education Program and permission of instructor and Curriculum and Instruction Program Coordinator.

EDTE 5348. K-12 Educational Technology. 3 Credit Hours.
This course focuses on K-12 learning outcomes, data analysis, and instructional decision making. Mentoring skills necessary for peer support are also explored. Students will apply tools for enhancing their own professional growth and productivity and will use technology in communicating, collaborating, conducting research, and solving problems that typically arise in learning environments.

EDTE 5349. Educational Media and Technology. 3 Credit Hours.
Examine the role of technology in school settings and explore available technologies and the applications for instruction. Focus is on Web 2.0 applications for communication and collaboration that expand and extend learning environments.

EDTE 5350. Teaching Desktop Publishing. 3 Credit Hours.
Integrate tools of desktop publishing and graphic applications to successfully demonstrate knowledge and skills needed to teach Desktop Publishing. Explore current research in the area of technology applications. Apply tools for enhancing professional growth and productivity and use technology in communicating, collaborating, conducting research, and solving problems that typically arise in learning environments. Prerequisite(s): EDTE 5349.

EDTE 5351. Multimedia Animation for Kindergarten through 12th Grade. 3 Credit Hours.
Integrate tools of multimedia, graphics, and animation to successfully demonstrate knowledge and skills necessary to teach the Technology Applications Texas Essential Knowledge and Skills (TEKS). Explore current research in the area of multimedia and use technology in communicating, collaborating, conducting research, and solving problems that typically arise in learning environments. Prerequisite(s): EDTE 5350.

EDTE 5352. Teaching Kindergarten through 12th Grade Video Technology. 3 Credit Hours.
Integrate tools of video and animation to successfully demonstrate knowledge and skills needed to teach the Technology Applications Texas Essential Knowledge and Skills (TEKS). Explore current research in the area of video technology and use technology in communicating, collaborating, conducting research, and solving problems that typically arise in learning environments. Prerequisite(s): EDTE 5351.
EDTE 5359. Leading and Learning with Technology. 3 Credit Hours.
Learn to demonstrate the knowledge and skills necessary to teach Web mastering. Explore current research in the area of web-based applications and will use technology in communicating, collaborating, conducting research, and solving problems that typically arise in learning environments. Prerequisite(s): EDTE 5352.

EDTE 5388. Educational Technology Problem. 1-3 Credit Hours.
Study of selected problems in educational technology. Engage in independent research, reading and discussions under the personal direction of the instructor; topics may vary according to student need. Open to graduate students who are capable of developing a problem independently and permission of instructor and Curriculum and Instruction Program Coordinator. Prerequisite(s): Full admission to the Office of Graduate Studies and a graduate degree or certification program.

English (ENGL)

ENGL 3100. Discourse Theory & Application. 1 Credit Hour.
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 permission to enroll. Prerequisite(s): ENGL 1301.

ENGL 3303. Western Literature I. 3 Credit Hours.
A survey of Western Literature from ancient times through the Renaissance. Prerequisite(s): ENGL 1301.

ENGL 3304. Western Literature II. 3 Credit Hours.
A survey of Western Literature from the Enlightenment to the Present. Prerequisite(s): ENGL 1301.

ENGL 3305. Critical Analysis of Lit. 3 Credit Hours.
(WI) A study of contemporary criticism as it relates to the study of form, theory, and content of fiction, nonfiction, drama, poetry, and other artistic expression. Prerequisite(s): ENGL 1301.

ENGL 3306. Readings in Adolescent Lit. 3 Credit Hours.
A survey of literature with a focus on teenage audiences. Readings include both the classics and contemporary selections. Study is concerned with increasing student understanding of unique aspects of adolescent literature and its application in public school curricula. Prerequisite(s): ENGL 1301.

ENGL 3309. Tech Writing & Document Design. 3 Credit Hours.
(WI) The process of developing technical information, including researching, drafting, editing, revising, and designing technical reports, proposals, manuals, job application documents and professional correspondence for specific audiences, using word processing and graphic applications. Prerequisite(s): ENGL 1301.

ENGL 3310. Technical Writing & Editing. 3 Credit Hours.
(WI) Study of advanced technical communication situations such as formal reports, grant proposals, and professional articles, and extensive discipline-specific professional-level practice in these forms. Study of general editorial techniques in formats, graphics, and layout and design methods in technical publications. Prerequisite(s): ENGL 1301.

ENGL 3312. Graphics & Technical Writing. 3 Credit Hours.
This course examines the integration of graphic components in printed and electronic mediums. Students use computer applications to compose and design graphics such as bar graphs, organizational charts, flow charts, diagrams, and drawings. Prerequisite(s): ENGL 1301.

ENGL 3320. Advanced Grammars. 3 Credit 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. Prerequisite(s): ENGL 1301.

ENGL 3330. Advanced Composition. 3 Credit Hours.
(WI) Advanced Composition enhances students' proficiency in critical reading and thinking, rhetorical concepts/awareness, the writing process, academic argument, scholarly research, and productive revision practices. Through intensive writing workshops and critical engagement with a variety of interdisciplinary texts, students hone their writing abilities to meet the demands and expectations for different writing contexts with a particular focus on writing for academic audiences. Prerequisite(s): ENGL 1301.

ENGL 3335. Film Studies. 3 Credit Hours.
(WI) A study of movies as dramas involving narrative plot, characterization, theme, etc. and as artistic productions involving shots, cuts, and other film techniques. Prerequisite(s): ENGL 1301.

ENGL 3339. Literature & Film. 3 Credit Hours.
This course introduces students to the relationship between literature and film and the practice of cinematic adaptation. Prerequisite(s): ENGL 1301.

ENGL 3343. Creative Writing. 3 Credit Hours.
Focuses on the craft and art of creative expression within one genre or a set of related genres. Attention to the conception, design, and execution of the whole work and of elements of figurative language, characterization, dialogue, point of view, and poetic structure, as well as other elements of the craft. Prerequisite(s): ENGL 1301.

ENGL 3350. Children's Literature. 3 Credit Hours.
A general survey of literature for children. Includes a study of types of literature for children and of the development of criteria for the selection and evaluation of children's books. This course may be counted as an elective but not towards the 24-hour advanced English requirement for an English major. Prerequisite(s): ENGL 1301.

ENGL 3356. Literary Authors. 3 Credit Hours.
(WI) An in-depth study of a single author or a single group of closely related authors. Topics vary and the course can be repeated for credit if taken under a different emphasis. Prerequisite(s): ENGL 1301.

ENGL 3357. Literary Themes. 3 Credit Hours.
(WI) An in-depth study of one major theme in literary history. Topics vary and the course can be repeated for credit if taken under a different emphasis. Prerequisite(s): ENGL 1301.

ENGL 3358. Literary Period. 3 Credit Hours.
(WI) An in-depth study of one major literary period in literary history. Topics vary and the course can be repeated for credit if taken under a different emphasis. Prerequisite(s): ENGL 3358.

ENGL 3359. Literary Genres. 3 Credit Hours.
(WI) An in-depth study of one major literary genre. Topics will vary and the course can be repeated for credit if taken under different emphasis. Prerequisite(s): ENGL 1301.

ENGL 3370. Introduction to Linguistics. 3 Credit 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 also focuses on the nature and diversity of the rule-bound creativity underlying the tacit systematic use of human language. Prerequisite(s): ENGL 1301.
ENGL 3372. Sociolinguistics. 3 Credit Hours.
Study of the relationship of language and society as shown in the following areas: language change, language variation and social class, pidgin and Creole languages, and language policy and planning. Prerequisite(s): ENGL 1301.

ENGL 3374. Psycholinguistics. 3 Credit Hours.
Deals with a variety of formal cognitive mechanisms that are relevant to the knowledge and use of natural languages. Prerequisite(s): ENGL 1301.

ENGL 3376. Discourse Analysis. 3 Credit Hours.
Investigates the structure of spoken communication from a linguistic perspective to enable students to understand narrative and conversation. Students study the principles of pragmatic theory, speech act theory and critical discourse analysis. Prerequisite(s): ENGL 1301.

ENGL 4300. Shakespeare. 3 Credit Hours.
An in depth study of representative types of Shakespeare's drama and poetry. Prerequisite(s): ENGL 1301.

ENGL 4311. History of Rhetoric. 3 Credit Hours.
This course provides students with a foundation in the history of rhetoric, paying particular attention to what many have labeled as the origin of rhetorical studies in classical Greece. Prerequisite(s): ENGL 1301.

ENGL 4312. Rhetorical Criticism. 3 Credit Hours.
(WI) This course introduces students to rhetorical criticism. Through a survey approach, students will be introduced to a wide range of analytical tools and strategies to effectively describe, analyze, and interpret a wide range of discourse. Prerequisite(s): ENGL 1301.

ENGL 4313. Visual Rhetoric. 3 Credit Hours.
(WI) Introduces students to a variety of lenses that can be used to study visual texts, including (but not limited to) Content Analysis, Compositional Interpretation, Semiology, Psychoanalysis, Discourse Analysis, and Audience Studies. Emphasizes the importance of visual rhetoric in communication and argument. Prerequisite(s): ENGL 1301.

ENGL 4314. Multicultural Rhetorics. 3 Credit Hours.
(WI) This course introduces students to multicultural rhetorics. Students will read texts examining the theory/practice of Asian, African, Latino/a, and African American Rhetorics. Special attention will be given to traditionally underrepresented voices in the rhetorical tradition. Prerequisite(s): ENGL 1301.

ENGL 4320. Writing for Electronic Media. 3 Credit Hours.
The advanced study of and practice in writing for electronic mediums with a primary focus on planning, designing, and composing professional pages for the World Wide Web. Prerequisite(s): ENGL 1301.

ENGL 4330. Grant & Proposal Writing. 3 Credit Hours.
This course offers advanced practice in analyzing and writing proposals for businesses, governmental agencies, and/or private foundations. Prerequisite(s): ENGL 1301.

ENGL 4336. Film History. 3 Credit Hours.
This course examines the historical development of film as an industry and major modern art form. Attention given to important movements, periods, and nationalities. Prerequisite(s): ENGL 1301.

ENGL 4337. Film Auteurs. 3 Credit Hours.
This course examines the work of one or more film director. Attention given to critical analysis of representative films and comprehension of critical literature. Prerequisite(s): ENGL 1301.

ENGL 4338. Film Genres. 3 Credit Hours.
This course examines genre as a means of production and reception. Attention given to the recurring characters, actions, and values in films and the cultural role of these stories. Prerequisite(s): ENGL 1301.

ENGL 4339. Film Theory & Criticism. 3 Credit Hours.
This course examines the theoretical and critical approaches common to film. Attention given to the major approaches to understanding film from the spectator's side of the camera. Prerequisite(s): ENGL 1301.

ENGL 4360. Adv Studies in Secondary Engl. 3 Credit Hours.
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. Prerequisite(s): ENGL 1301.

ENGL 4378. History of the English Language. 3 Credit Hours.
Diachronic study of the English language with focus on the Old English, Middle English, and Modern English periods. Topics include phonological, morphological, syntactic, and lexical change in English along with the cultural and historical events and contact situations, which accompany language development. Prerequisite(s): ENGL 1301.

ENGL 4388. English Problems. 1-3 Credit 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 permission of department chair. Prerequisite(s): ENGL 1301.

ENGL 5090. English Comprehensive Exam. 0 Credit Hours.
Comprehensive Examination for non-thesis students in the field of English. The Comprehensive Examination should be completed during the final semester of graduate coursework, or upon permission of advisor. All comprehensive examinations will be written, but an oral component may also be required. A maximum of three attempts will be allowed. Thesis students do not take this examination.

ENGL 5300. Shakespeare. 3 Credit Hours.
A close study of Shakespeare's literature and language with selections from representative texts including the histories, comedies, tragedies, and/or sonnets.

ENGL 5310. Studies in American Literature. 3 Credit 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 5320. Studies in English Language. 3 Credit 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.
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 5330. Studies in Rhetoric. 3 Credit 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 5340. Studies in Modern Fiction. 3 Credit 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 5342. Adaptation. 3 Credit Hours.
This course introduces students to the concept of adaptation and to one account for how this concept has evolved. The focus is, admittedly, more on the notion of adaptation as a way to engage a text critically than it is on specific adaptations. All assignments, even those that ask students to evaluate a particular adaptation, should reflect this conceptual focus.

ENGL 5350. Studies in Lit before 1500. 3 Credit Hours.
A study of representative types of pre-1500 literature in English. Topics may vary. May be repeated for credit when topics vary.

ENGL 5352. Chaucer. 3 Credit Hours.
An in-depth study of the language and literature of Geoffrey Chaucer, including his minor poetry and dream visions, Troilus and Criseyde, and the Canterbury Tales.

ENGL 5360. Modern American & Brit Poetry. 3 Credit 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 Lit. 3 Credit 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 5372. English Seminar. 1-3 Credit Hours.

ENGL 5374. Methods of Bib & Res Analysis. 3 Credit Hours.
An introduction to methods of research and effective utilization of library resources. May include analytical bibliography, enumerative bibliography, and textual criticism.

ENGL 5380. Studies in Teaching of Comp. 3 Credit 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 5382. Composition Assessment. 3 Credit Hours.
This class introduces students to the scholarship, theory, and methods for assessing writing with a particular focus on assessment theory and history (especially non-psychometric understandings of validity and reliability) and classroom assessment (e.g. grading and response) with some discussion of large-scale assessments (e.g. program assessment, placement, standardized testing, etc.).

ENGL 5384. English Internship. 3 Credit Hours.
Supervised professional activities in the college composition classroom including presentations, evaluation, and conferences. May be repeated once for credit. Field experience fee $75.

ENGL 5385. Writing Program Administration. 3 Credit Hours.
Investigates the work of writing program administrators, including FYC Coordinators, WAC Coordinators, WID Coordinators, and Writing Center Coordinators. Students can anticipate learning from current writing program administrators.

ENGL 5386. Computer Mediated Composition. 3 Credit Hours.
Explores notions of 21st century writing, paying particular attention to digital and multimodal composition; particular attention is given to teaching these text-types.

ENGL 5387. Studies in Literacy. 3 Credit Hours.
Examines the evolution of literacy and the expectations of literate students; approaches for conducting research in literacy studies is also addressed.

ENGL 5388. Special Problems. 1-3 Credit Hours.
Conference course. Directed independent study under supervision of a senior faculty member.

ENGL 5398. Thesis. 1-6 Credit Hours.
Scheduled when student is ready to begin thesis. No credit until thesis is accepted. Prerequisite(s): ENGL 5374, 24 hours of graduate credit and permission of department chair.

Exercise Physiology (EPHP)

EPHP 3301. Exercise Physiology I. 3 Credit Hours.
The purpose of this course is to increase the student's knowledge and understanding of the physiological adaptations that occur during exercise. Emphasis will be applied to the cardiovascular, respiratory, and digestive systems. Prerequisites: BIOL 2401, BIOL 2402.

EPHP 3302. Exercise Physiology II. 3 Credit Hours.
The purpose of this course is to further increase the student's knowledge and understanding of the physiological adaptations that occur during exercise. Emphasis will be applied to the nervous, muscular, skeletal, and endocrine systems. Prerequisite: EPHP 3301.

EPHP 3303. Anatomical Kinesiology. 3 Credit Hours.
The purpose of this course is to study the application of basic mechanics of human motion to physical education activities. Includes a study of gross anatomy with application of the anatomical and mechanical principles involved in human movement. Prerequisites: BIOL 2401, BIOL 2402.

EPHP 3304. Exercise Biochemistry. 3 Credit Hours.
This course provides an overview of the biochemistry and metabolism related to exercise, training adaptations, and nutrition. Prerequisite: CHEM 1411, CHEM 1412.

EPHP 3305. Principles and Techniques of Strength Training and Conditioning. 3 Credit Hours.
This course provides an overview of the principles of program design. Methods of resistance training and assessment are emphasized in laboratory demonstrations. Prerequisite(s): EPHP 3301.

EPHP 3306. Exercise Testing and Prescription. 3 Credit Hours.
The purpose of this course is to teach students how to use relevant fitness testing equipment and prescribe appropriate exercise program based on fitness evaluations. Students will learn the guidelines and protocols for safe and effective exercise testing for normal and special populations. Prerequisite(s): EPHP 3301.

EPHP 4101. Advanced Resistance Training. 1 Credit Hour.
This course provides an opportunity for students to develop an increased understanding and appreciation for the principles of resistance training through direct participation in this style of training. Prerequisite: EPHP 3302.

EPHP 4102. Advanced Cardiovascular Training. 1 Credit Hour.
This course provides an opportunity for students to develop an increased understanding and appreciation for the principles of cardiovascular training through direct participation in this style of training. Prerequisite(s): EPHP 3301.
EPHP 4301. Leadership in Exercise and Sport. 3 Credit Hours.
(WI) The purpose of this course is to provide a general overview of leadership dynamics and their application to exercise and sports settings.

EPHP 4302. Sports Nutrition. 3 Credit Hours.
This course provides an overview of the role of nutrition as a means to enhance health and performance in exercise and sport. Topics to be covered include principles of healthful nutrition, energy metabolism, the role of vitamins and minerals, ergogenic aids, and weight management. Prerequisite: EPHP 3304.

EPHP 4304. Principles of Strength and Muscular Hypertrophy. 3 Credit Hours.
This course provides an opportunity for students to develop an increased understanding for the mechanisms of muscular hypertrophy and the principles of resistance training. Prerequisite(s): EPHP 3301.

EPHP 4305. Research Methods. 3 Credit Hours.
This course will introduce students to research methodologies, data analysis techniques, and research evaluation for fields related to Exercise Physiology and other Health Sciences.

EPHP 4395. Exercise Physiology and Human Performance Capstone. 3 Credit Hours.
(WI) This course serves as a capstone seminar in which students will demonstrate expertise in a selected area of exercise and sport science. Prerequisite(s): EPHP 3301, 3302, 3303, 3304, 3305, and 4305.

EPHP 4684. Exercise Physiology and Human Performance Internship. 6 Credit Hours.
The internship provides hands-on experience for the human performance major in the area of his or her concentration. A minimum of 250 hours on-site is required. The experience includes a special project determined jointly by the student and the agency intern supervisor. Prerequisites: EPHP 3301, 3302, 3303, 3304, 3305, 3306.

Finance (FIN)

FIN 3300. Introduction to Financial Planning. 3 Credit Hours.
Analyze personal financial decisions, including basic financial planning, tax issues, managing savings and deposit accounts, buying real assets, the use of credit, insurance management investments and saving for retirement.

FIN 3301. Financial Management I. 3 Credit Hours.
Analyze financial decision-making at the corporate level with emphasis on the maximization of stockholder wealth. Learn financial statement analysis, the valuation of stocks and bonds, cost of capital, capital budgeting, dividend policy, leverage and capital structure, methods of firm valuation, working capital management, mergers and acquisitions, and bankruptcy. Prerequisite(s): ACCT 2302 or ACCT 2402 and ECON 2301.

FIN 3302. Financial Intermediaries. 3 Credit Hours.
Study the internal operations of financial intermediaries with major emphasis on organization, source and allocation of funds, supervision, and regulation. Prerequisite(s): FIN 3301 and ECON 3303.

FIN 3303. Money and Banking. 3 Credit Hours.
Study 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. Credit for both FIN 3303 and ECON 3303 will not be awarded. Prerequisite(s): ECON 2301.

FIN 3304. Economics in Financial Markets. 3 Credit Hours.
Study the aggregate financial system and capital markets and the impact these have on financial intermediaries. Special emphasis on flow of funds analysis, interest rate theory, role of financial intermediaries, and management of financial assets. Credit for both FIN 3304 and ECON 3305 will not be awarded. Prerequisite(s): FIN 3301.

FIN 3309. Global Financial History. 3 Credit Hours.
Study different financial crises in history. Explore global and long-term overviews of socio-economic factors that influence the development of financial instruments, institutions, markets and entrepreneurs.

FIN 3387. Cooperative Education. 1-3 Credit Hours.
Integrate academic study with work experience that is relevant to a major or minor. Two-semester minimum requirement 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. Cooperative Education advisor will supervise the student's and assign the final grades. Students may participate in the Cooperative Education but will earn only a maximum of 6 hours credit toward a degree. Prerequisite(s): 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 permission of department chair. Field experience fee $75.

FIN 3300. Advanced Financial Management. 3 Credit Hours.
Analyze value-based management techniques with emphasis on the factors affecting the corporation's intent to maximize shareholder wealth. Explore financial statement analysis, cash flow analysis, economic and market value added securities valuation, the cost of capital, capital budgeting, capital structure, dividend policy, the use of leverage, working capital management, and corporate governance. Prerequisite(s): FIN 3301.

FIN 4301. International Financial Management. 3 Credit Hours.
Analyze the financing of investment abroad, the management of assets in differing financial environments, issues and questions which concern financial management of international corporations. Explore 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(s): FIN 3301 or permission of department chair.

FIN 4302. Real Estate Finance. 3 Credit Hours.
Study 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. Prerequisite(s): Permission of department chair.

FIN 4303. Case Studies in Finance. 3 Credit Hours.
(WI) Utilize fundamental concepts learned in previous finance, accounting, and economics courses to analyze real-world finance problems. In structured and unstructured cases, student teams analyze problems and recommend solutions. Cases drawn from areas such as corporate finance, investments, international finance, and personal finance. Prerequisite(s): FIN 3301.

FIN 4304. Investments. 3 Credit Hours.
Study the development of investment policy, the character of investment risk, comparison of investment media, description and analysis of security markets and their operations. Prerequisite(s): FIN 3301. BUSI 3311 or equivalent.
FIN 4305. Federal Tax Accounting I. 3 Credit Hours.
Explore the present income tax law and regulations, income tax legislation, treasury and court decisions, departmental ruling, income tax problems and returns, social security and self-employment taxes. Prerequisite(s): ACCT 2302 or ACCT 2402 and Junior classification. Credit for both ACCT 4305 and FIN 4305 will not be awarded.

FIN 4306. Federal Tax Accounting II. 3 Credit Hours.
Study current income tax law and tax accounting procedures. Preparation of income tax returns of partnerships and corporations. Prerequisite(s): FIN 4305 or permission of School Director. Credit for both ACCT 4306 and FIN 4306 will not be awarded.

FIN 4307. Analysis of Fin Statements. 3 Credit Hours.
Analyze corporate financial statements. Learn how information can be analyzed and processed to aid creditors, investors, managers, consultants, auditors, directors, regulators and employees in their business decisions. Prerequisite(s): FIN 3301 or permission of department chair.

FIN 4308. Risk Management. 3 Credit Hours.
Analyze processing, investing, and evaluation of risk management. Examine risk management process and its application in commercial, personal, and public risk. Explore various types of insurance products, the process by which insurance is sold, and how individuals and organizations manage risk via insurance products. Prerequisite(s): FIN 3301 or permission of department chair.

FIN 4310. Managerial Economics. 3 Credit Hours.
Study economic theory and methodology in business and administrative decision-making. Explore economic analysis and It's use in formulating business policies. Analyze concepts of profits, production and cost functions, demand theory, competitive pricing policies, and business criteria for investment output and marketing decisions. Credit for both FIN 4310 and ECON 4310 will not be awarded. Prerequisite(s): FIN 3301.

FIN 4384. Financial Internship. 1-6 Credit Hours.
Participate in a finance related position for work experience with a public or private organizations that is preapproved and supervised. May be repeated for a total of 6 credit hours. Prerequisite(s): FIN 3301 and permission of department chair.

FIN 4388. Financial Problems. 1-3 Credit Hours.
Study of selected problems in finance. Engage in independent research, reading and discussions under the personal direction of the instructor, topics may vary according to student need. May be repeated with permission department chair. Prerequisite(s): Permission of department chair.

FIN 4399. Selected Topics in Finance. 3 Credit Hours.
Examine current issues and topics in finance. Study readings from current finance publications and other related periodicals. Activities may include directed study, participation in professional organizations, research and presentations, job market analysis, preparation and sitting for professional certification exams. May be repeatable for credit if the topic varies. Prerequisite(s): 12 semester hours of FIN and permission of department chair.

FIN 5301. International Fin Strategy. 3 Credit Hours.
Examine 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 vestment opportunities.

FIN 5303. Bank Management. 3 Credit Hours.
Study bank management and bank regulation. Examine the operations and management policies of depository institutions, the conditions that have led to bank regulation and deregulation, the risk structure of credit for commercial and consumer clients, and capital management issues for a bank.

FIN 5304. Investments. 3 Credit Hours.
Explore 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(s): FIN 3301 or equivalent.

FIN 5305. Corporate Finance Case Studies. 3 Credit Hours.
Incorporate case studies and financial analysis to make financial management decisions. Analyze selected cases and prepare solutions. Discuss solutions in class and prepare proposals. Students will be required to use prior knowledge, current research, and analytical ability in preparing their proposals. Prerequisite(s): Graduate standing.

FIN 5306. Markets and Institutions. 3 Credit Hours.
Explore the operation, mechanics, and structure of the financial system within the United States, emphasizing its institutions, markets, instruments, and monetary policy of the Federal Reserve and its impact upon financial institutions.

FIN 5307. Financial Management. 3 Credit Hours.
Study financial decision making in the modern corporation. Explore capital budgeting, capital structure, corporate sources of funding, dividend policy, financial risk management, standard theories of risk and return, and valuation of assets. Prerequisite(s): FIN 3301 or equivalent.

FIN 5308. Managerial Economics. 3 Credit Hours.
Analyze economic theory and methodology in business and administrative decision-making. Study the tools of economic analysis and their use in formulating business policies. Explore concepts of profits, production and cost functions, demand theory, competitive pricing policies, and business criteria for investment output and marketing decisions. Credit for both FIN 5308 and ECON 5308 will not be awarded.

FIN 5309. Global History of Finance. 3 Credit Hours.
Study the history of money to develop a unified framework for understanding the economic events, public policy, and financial innovation that characterize different geographical settings over time.

FIN 5310. Risk Management. 3 Credit Hours.
Explore the theory and practice of private insurance and its economic and social significance. Analyze life, health, automotive, homeowners, and liability insurance. Study various forms of risk management, characteristics of insurance contracts, government regulatory characteristics, and institutional structures are studied. Prerequisite(s): none.

FIN 5360. Finance Theory. 3 Credit Hours.
Study selected theoretical models used in finance. Explore the seminal theories that make up modern finance and form the basis for current research. Prerequisite(s): FIN 5307.

FIN 5370. Consumer Finance Seminar. 3 Credit Hours.
Explore consumer and business finance topics. Analyze debt management, initial public offering of a new business, Internet based finance and regulatory aspects, and management of compensation. Credit for both FIN 5370 and HRM 5326 will not be awarded.
FIN 5388. Financial Problems. 1-3 Credit 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(s): Permission of instructor.

FIN 5389. Selected Topics in Finance. 3 Credit Hours.
Examine selected topics in finance. Special emphasis on investments, corporate financial management, and financial markets and institutions. This course may be repeated for credit as the topic changes. Prerequisite(s): Graduate standing and FIN 3301 or FIN 5307 or permission of instructor.

Fine Arts (F A)

F A 3347. Music History to 1750. 3 Credit Hours.
Explore the history of western music, beginning with the earliest musical instruments ever found, proceeding through ancient Mesopotamia, ancient Greece and Rome, and continuing through the Medieval, Renaissance, and Baroque periods of European music. Special emphasis on theoretical structure, social and historical context, interaction with other art forms, instrumentation, and others.

F A 3349. Music History from 1750. 3 Credit Hours.
Explore the history of western music, continuing the Baroque period, and proceeding through the Classical, Romantic, and twentieth century periods. Special emphasis on theoretical structure, social and historical context, interaction with other art forms, and instrumentation.

F A 3350. World Music. 3 Credit Hours.
Introduces ethnomusicology and a cross cultural study of music. Explore music and performance from around the world, and their impact on the political, social, religious, artistic, and economic spheres. This course is appropriate for any student of any musical background. Formal training in music is not required, and you do not have to know how to read music notation.

F A 4301. The Arts in Contemporary Society. 3 Credit Hours.
(WI) Explore an interdisciplinary approach to the relationships of art, music, and theatre in contemporary society.

F A 4311. The Protest Song in America. 3 Credit Hours.
(WI) This course explores the connection between songs and social/political movements in the United States from the founding of the nation to the present era with special emphasis on analyzing lyrics as poetic expressions in the great American song tradition.

F A 4312. The Blues. 3 Credit Hours.
(WI) Explore the origins, evolution, and influence of the blues as both a musical and literary art form through its impact on American culture and society with special emphasis on analyzing blues lyrics as poetic expressions in the great American song tradition.

F A 4321. The Artist on Film. 3 Credit Hours.
(WI) Explore a variety of films and texts on various artists in order to debate and define the stereotypes placed upon artists. Analyze the ways in which the films either clarify or distort the artist's biography, work, and legacy.

F A 4330. Fine Arts Seminar. 1-3 Credit Hours.
Explore current topics and issues in fine arts. Topics will vary. May be repeated twice for credit as topics vary.

F A 4388. Fine Arts Problems. 1-3 Credit Hours.
Independent reading, research, and discussion under personal direction of instructor. Topics vary according to student need. Prerequisite(s): Permission of department chair.

Geography (GEOG)

GEOG 3303. Geographic Techniques. 3 Credit Hours.
Examine the three main techniques in geographic analysis: computer cartography, spatial statistics, and geographic information systems (GIS). Learn basic principles and techniques of producing maps, basic spatial statistics, and the use of GIS as a tool to gather, store, manipulate, and analyze various spatial databases. Prerequisite(s): GEOG 1303 or permission of instructor.

GEOG 4305. Geography Seminar. 3 Credit Hours.
Examine major issues within modern geography. May be repeated for credit when topics vary. Prerequisite(s): GEOG 1303 or permission of instructor.

Health (HLTH)

HLTH 3351. Principles of Health and Fitness for Children. 3 Credit Hours.
Study health and physical education as they relate to children ages 6-14. Emphasis on skills related to personal health and safety, physical fitness, motor development, games and sports, gymnastics, and rhythmic activities. Prerequisite(s): Junior classification or permission of instructor.

Health Administration (HEAD)

HEAD 5311. Health Administration and Strategy. 3 Credit Hours.
Analyze the foundation of strategy within the complex industry of health organizations. Study theoretical frameworks and empirical analyses to emphasize the health services administrator's role in health care. Learn how health administrators support both the providers and recipients of health care. Use a focal point to create a deep understanding of competitive advantage in the market and in government operations.

HEAD 5312. Health Care Economics, Finance and Accounting. 3 Credit Hours.
Study the highest cognitive and affective understanding of applied health care, economics, finance and accounting in health services organization. Analyze theoretical frameworks and empirical analyses to emphasize organizational and provider services. Use these services in relation to capacities and competencies within the health care industry and patient/client needs and wants.

HEAD 5313. Health Policy and Law. 3 Credit Hours.
Study current policy and future political ideology and their impact on care in health organizations. Learn clinical framework to present issues and policy outcomes. Examine the basic principles and practices of laws affecting health facilities and medical practices, patient care and treatment, and medical and health employment.

HEAD 5314. Health Informatics and Trends. 3 Credit Hours.
Study the Management Information Systems (MIS) needed in health care organizations. Explore the hardware, software, and human systems requirements for operational support. Provides a foundation for those individuals who are interested in becoming certified as computer systems managers in health care organizations.

HEAD 5315. Health Ethics and Residency. 3 Credit Hours.
Learn historical, present and future ethical issues in health administration. Emphasis on decision, clinical, business, organizational and social ethics.
Higher Education Leadership (HIED)
HIED 5090. Culminating Portfolio. 0 Credit Hours.
This course provides students an opportunity to reflect and synthesize programmatic experiences into a culminating portfolio.

HIED 5300. Career & Professional Development Seminar. 3 Credit Hours.
This course provides students intentional opportunities to engage in self-reflection, work place skill enhancement, and leadership development.

HIED 5301. History of Higher Education. 3 Credit Hours.
This course provides an overview of the history and development of American higher education. Emphasis is placed on the influence of political, economic, and social forces.

HIED 5302. Planning and Resource Management in Higher Education. 3 Credit Hours.
This course provides an overview of the economics and finance of higher education in the United States, with an emphasis on the analysis of financial policies and current issues at the national, state, and institutional levels.

HIED 5303. Higher Education Law & Ethics. 3 Credit Hours.
This course explores legal aspects and issues of constitutional, statutory, and case law and the ethical implications on professional practice and compliance. Current trends and potential ethical dilemmas of the practitioner will also be covered.

HIED 5304. Student Development and the College Environment. 3 Credit Hours.
This course serves as an overview of the field of student affairs and the impact of the college environment on student development.

HIED 5305. Research Methods in Higher Education. 3 Credit Hours.
This course provides a general overview of research in the field through an introduction to research methodologies and basic statistics.

HIED 5306. Critical Issues in Higher Education. 3 Credit Hours.
This course is an examination of social, political, ethical, and economic issues that impact higher education.

HIED 5307. Leading Change in Higher Education. 3 Credit Hours.
This course provides a survey of organizational change and corresponding leadership dynamics in the field of higher education.

HIED 5308. Assessment and Evaluation in Higher Education. 3 Credit Hours.
This course examines various aspects of assessment and evaluation in higher education such as assessing student outcomes, reviewing program outcomes, and institutional accreditation.

HIED 5312. The Age of Jackson from 1815-1848. 3 Credit Hours.
Examine American development during the Jacksonian period with an emphasis on the expansion of social and political democracy. Prerequisite(s): 6 hours of HIST or permission of department chair.

HIST 3310. American Beginnings. 3 Credit Hours.
Explore the history of America from first European contact to 1763. Special emphasis on relations between Europeans and Native Americans, imperial rivalries, and the development of the English mainland colonies. Prerequisite(s): 6 hours of HIST or permission of department chair.

HIST 3311. Creating a Nation. 3 Credit Hours.
Explore the history of the United States from 1763 to 1815. Special emphasis on the causes and consequences of the American Revolution, the writing of the Constitution, and the triumph of liberal democracy. Prerequisite(s): 6 hours of HIST or permission of department chair.

HIST 3312. Military History of the United States. 3 Credit Hours.
Study American history, at the turn of the century, emphasizing the impact of industrialism and urbanism on politics and society. Prerequisite(s): 6 hours of HIST or permission of department chair.

HIST 3315. Populism and Progressivism, 1877-1917. 3 Credit Hours.
Study American history, at the turn of the century, emphasizing the impact of industrialism and urbanism on politics and society. Prerequisite(s): 6 hours of HIST or permission of department chair.

HIST 3316. Military History of the United States. 3 Credit Hours.
Study the role of the military in American development with emphasis on the 20th century. Concentrates on the evolution of strategy and tactics, organizational change and civilian-military relations. Prerequisite(s): 6 hours of HIST or permission of department chair.

HIST 3320. Social History of the United States to 1877. 3 Credit Hours.
Examine the social, cultural, and economic development of the United States from colonial times to the end of Reconstruction. Prerequisite(s): 6 hours of HIST or permission of department chair.

HIST 3321. Social History of the United States from 1877. 3 Credit Hours.
Examine the social, cultural, and economic development of the United States since the end of Reconstruction. Prerequisite(s): 6 hours of HIST or permission of department chair.

HIST 3322. History of Texas. 3 Credit Hours.
Explore Texas history from the Spanish colonial period to the present. Concentrates on the dynamics of Hispanic heritage, the Revolution and Republic, the Civil War and Reconstruction, and the political and economic developments of the modern state. Prerequisite(s): 6 hours of HIST or permission of department chair.

HIST 3324. Hollywood Westerns and the American West. 3 Credit Hours.
Examine the 20th century American Western history through an examination of Western films, from the early twentieth century to the present day. Analyze mythic interpretations and historical realities of the American West to understand the role of the western in shaping perceptions of the West.

HIST 3325. United States Women's History to 1877. 3 Credit Hours.
Study the history of women in America from the colonial period through 1877, with special emphasis on women's roles in public and private life, and the historical role of women in the development of the nation.

HIST 3326. United States Women's History from 1877. 3 Credit Hours.
Study the history of women in America from 1877 through the present, with special emphasis on the emergence of modern American women during the latter part of the Nineteenth century and women's roles in the continued development of the nation.
HIST 3327. African American History to 1877. 3 Credit Hours.
Explore African American history from the colonial period to 1877, with special emphasis on the slave trade, the development of the institution of slavery, free blacks and the impact of the Civil War and Reconstruction on African Americans.

HIST 3328. African American History from 1877. 3 Credit Hours.
Explore African American history from the end of Reconstruction to the present, with special emphasis on black leaders, disenfranchisement, lynching and the quest for equality in the mid-twentieth century.

HIST 3329. Church and State. 3 Credit Hours.
Examine the relationship of church and state in United States history, and the role religion has played in American political life, culture, and society.

HIST 3332. The Renaissance and Reformation, 1300-1648. 3 Credit Hours.
Examine European political, diplomatic, and cultural history from 1300 to 1648. Special emphasis on Renaissance Humanism, the Protestant movements, the Catholic Reformation, and the emergence of the European state system during the age of religious wars. Prerequisite(s): 6 hours of HIST or permission of department chair.

HIST 3339. Europe in the Middle Ages. 3 Credit Hours.
Examine Medieval Europe from the decline of the ancient world to the eve of the Renaissance. Special emphasis on the political, economic and social changes underlying the formation and development of medieval civilization. Prerequisite(s): 6 hours of HIST or permission of department chair.

HIST 3341. Europe from 1814 - 1919. 3 Credit Hours.
Examine the important developments in the political, diplomatic, social, economic, and intellectual history of Europe between the Congress of Vienna and the first World War, including the Revolution of 1848, the Industrial Revolution, and European diplomatic events leading to the Great War. Prerequisite(s): 6 hours of HIST or permission of department chair.

HIST 3342. Asian Civilization. 3 Credit Hours.
A survey of Asian civilizations with a primary focus on the history and cultures of India, China, and Japan. Examine general trends in the political, economic, social, and intellectual history of Asia, highlighting by discussions and consideration of selected cultural elements, such as art, literature, and film.

HIST 3351. History and Film. 3 Credit Hours.
Introduces topics in history through the study of film, with supplementary reading, lectures, and discussions.

HIST 3370. Colonial Latin America. 3 Credit Hours.
Examine the exploration and colonization of the Spanish and Portuguese dominions in South and Central America, including political history of the colonies, the church and colonial institutions, commercial systems of Spain and Portugal, expansion into the North American borderlands, and early independence movements. Prerequisite(s): 6 hours of HIST or permission of department chair.

HIST 3371. History of Mexico Before Independence. 3 Credit Hours.
Examine Mexican history from the arrival of the first peoples through the end of the Spanish colonial era. Special emphasis on early native civilizations, especially the Maya and Aztec, as well as the incursion of the Spanish and the conquest and colonization of Mexico.

HIST 3372. History of Mexico from 1821 - Present. 3 Credit Hours.
Examine modern Mexico, including the independence movement, conflict of centralism and federalism, war with the United States, political and economic developments under Juarez, Maximilian, and Diaz, and the social revolution of the 20th century. Prerequisite(s): 6 hours of HIST or permission of department chair.

HIST 4301. United States History and the World. 3 Credit Hours.
(WI) Learn how world events influenced American history from 1789 to the present. Examine American diplomatic, economic, political, 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.

HIST 4302. Economic Development of the United States. 3 Credit Hours.
Survey the economic development of the United States from colonial times to the present. Credit for both HIST 4302 and ECON 4302 will not be awarded. Prerequisite(s): ECON 1301 or ECON 2301 and 6 hours of HIST.

HIST 4307. History Careers Outside the Classroom. 3 Credit Hours.
Examine the choices available for historians who seek careers outside of classroom teaching, including museums, historic preservation, cultural resource management, archival administration, parks, oral history, corporate history, and editing and publishing. Will not count as a history course for purposes of teacher certification. Prerequisite(s): 6 hours of HIST.

HIST 4310. 20th Century United States History. 3 Credit Hours.
Examine the recent history of the United States, with an emphasis on the political, social, cultural, and economic development of the nation. Prerequisite(s): 6 hours of HIST or permission of department chair.

HIST 4312. Topics in Women's History. 3 Credit Hours.
Explore special topics in the history of American women. May be repeated when the topic varies.

HIST 4313. Topics in African American History. 3 Credit Hours.
Develop understanding of African American history through advanced study of selected topics. May be repeated when the topic varies.

HIST 4314. History of the American West. 3 Credit Hours.
Examines the history of the Great West from the Lewis and Clark expedition to the 20th century. Special emphasis on the West as a distinctive region in national politics, state building in the 19th century, and the development of agriculture, transportation, and commerce. Prerequisite(s): 6 hours of HIST or permission of department chair.

HIST 4315. History of the South. 3 Credit Hours.
Surveys southern history emphasizing distinctive factors which set the region apart from the rest of the United States, including social and cultural development. Prerequisite(s): 6 hours of HIST or permission of department chair.

HIST 4317. Topics in Native American History. 3 Credit Hours.
Examine advanced Native American history topics. May be repeated when the topic varies.

HIST 4318. Topics in Oral History. 3 Credit Hours.
Examine advanced Oral History topics, including instruction in the history, methodology, and analysis of oral history. May be repeated when the topic varies.

HIST 4327. History of Russia and Eastern Europe to 1917. 3 Credit Hours.
Examination of Russia and Eastern Europe from the ancient period to the 1917 Bolshevik Revolution. Topics include: the development of Kievan Rus, the Mongol invasion, the Time of Troubles, the French Revolution and Napoleon, the Crimean War, the growth of revolutionary movements, and major philosophical, cultural, religious, and political ideas. Prerequisite: 6 hours of History or permission of Department Chair.
**HIST 4328. History of the Soviet Union and Post-Soviet Russia and Eastern Europe. 3 Credit Hours.**
Examination of the creation and the development of the Soviet Union and Post-Soviet Europe. Major events covered include: the Bolshevik Revolution, official cultural policies, World War II, the Cold War, the fall of Communism, transition to Capitalism, resurgent nationalism, and post-Communist political movements. Prerequisite(s): Recommended that students take History of Russia and Eastern Europe to 1917 Required: 6 hours HIST or permission of Department Chair.

**HIST 4332. England and Great Britain to 1603. 3 Credit Hours.**
Explore English history from Roman Britain to the death of Queen Elizabeth and the end of the Tudor dynasty. Special emphasis on the political, legal, and religious changes which formed the foundations of modern England. Prerequisite(s): 6 hours of HIST or permission of department chair.

**HIST 4333. England and Great Britain from 1603. 3 Credit Hours.**
Explore English history from 1603 to modern times. Special emphasis on the constitutional, political, economic, and legal changes which shaped Great Britain, including a survey of the empire and the United Kingdom. Prerequisite(s): 6 hours of HIST or permission of department chair.

**HIST 4335. Social History of Modern Europe. 3 Credit Hours.**
An analysis of European society since the industrial revolution, with emphasis on the social impact of industrialization and urbanization, changing patterns of social stratification, mobility, and class conflict in the 19th and 20th centuries. Pre-requisite: 6 hours of HIST or permission of department chairperson.

**HIST 4336. European Intellectual and Cultural History. 3 Credit Hours.**
Examine the fundamental ideas in the European intellectual tradition through an analysis of primary texts. Analyze the foundations of Western thought in the Judeo-Christian and Greco-Roman traditions, as well as the ideas and ideologies that have shaped modern European mentalities. Prerequisite(s): 6 hours of HIST or permission of department chair.

**HIST 4337. Europe from 1919 - 1945. 3 Credit Hours.**
Examine the period from the Paris Peace conference in 1919 to the end of the Second World War in Europe. Special emphasis on political and economic instability, the rise of dictatorships, and European diplomatic crises leading to war.

**HIST 4341. Revolutionary Europe from 1789 - 1814. 3 Credit Hours.**
Examine the political, social, economic, and intellectual forces unleashed in the French Revolution and Napoleonic era, beginning with a study of the Old Regime and ending with the Congress of Vienna in 1814. Special emphasis on the rise of liberalism and nationalism in Europe. Prerequisite(s): 6 hours of HIST or permission of department chair.

**HIST 4345. World War II and the Holocaust. 3 Credit Hours.**
Examine European history between the rise of Fascism and Communism after the Great War to the end of World War II in 1945. Special emphasis on European diplomacy in the inter-war years, the conduct of the Second World War, and the Holocaust. Prerequisite(s): 6 hours of HIST or permission of department chair.

**HIST 4364. Topics in National Histories. 3 Credit Hours.**
Examine the history of a particular state or region in depth. May be repeated for credit when the topics vary. Prerequisite(s): 6 hours of HIST or permission of department chair.

**HIST 4365. History of the World since 1919. 3 Credit Hours.**
Explore major trends in world history following World War I, including the impact of the Great Depression, the rise of totalitarianism, and the coming of World War II. Special emphasis on the postwar period. Prerequisite(s): 6 hours of HIST or permission of department chair.

**HIST 4380. History Seminar. 1-3 Credit Hours.**
Individual instruction in selected fields of history. Emphasis on reports and wide readings in selected fields. May be taken more than once for credit. Prerequisite(s): Senior standing or permission of department chair.

**HIST 4381. Concepts of History Education. 3 Credit Hours.**
Considers the methods and techniques for presenting historical material to secondary students. Learn to organize material into a logical framework to better present the interplay of people, nations, and cultures through time. Focuses on mastery of subject areas of the Texas Examination for Educator Standards for teacher certification.

**HIST 4382. Historical Method. 3 Credit Hours.**
(WI) Examine the concepts basic to historical thinking, causation, periodization, change, and continuity, the roles of social forces and individuals, and problems of interpretation, accuracy, and truth. Compare the social sciences and the humanities with an emphasis on the distinctive nature of the historical discipline as it has developed through time. Prerequisite(s): HIST 3300.

**HIST 4388. History Problems. 1-6 Credit Hours.**
Independent reading, research and discussion. Entry into this course will be arranged with the history counselor.

**HIST 4389. Special Topics in History. 3 Credit Hours.**
Examine important periods, regions, and themes in history. May be repeated when the topic varies.

**HIST 4391. History Practicum. 3 Credit Hours.**
Gain professional experience in the 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. Prerequisite(s): HIST 4307. May be repeated once for credit. Field experience fee $75.

**HIST 4395. History Senior Research Seminar. 3 Credit Hours.**
Develop and apply historical research and writing skills through the exploration of selected topics. Prerequisite(s): HIST 2311, HIST 2312, HIST 1301 and HIST 1302.

**HIST 5090. History Comprehensive Examination. 0 Credit Hours.**
Comprehensive Examination for non-thesis students in the field of History. The Comprehensive Examination should be completed during the final semester of graduate coursework, or upon permission of advisor. All comprehensive examinations will be written, but an oral component may also be required. A maximum of three attempts will be allowed. Thesis students do not take this examination.

**HIST 5198. History Thesis. 1-6 Credit Hours.**
Scheduled when the student is ready to begin the thesis. No credit until the thesis is completed. Prerequisite(s): 24 hours graduate credit, including HIST 5380 and at least one research seminar, and consent of major professor.

**HIST 5300. Elements of Historical Inquiry. 3 Credit Hours.**
Examine history as a profession, including how historians read sources, pose questions, draw inferences, shape their narratives, and engage historical writings.
HIST 5307. Public History Seminar. 3 Credit Hours.
Examine public history careers available for master's level history graduates in areas outside of classroom teaching. This is a gateway course for all public history courses.

HIST 5308. Museum Studies. 3 Credit Hours.
Examine the theory and practice of the multiple careers available to historians in museums, including curating, collections care, educational programming, exhibits, media relations, financial development, and construction and management of facilities.

HIST 5309. Historic Preservation. 3 Credit Hours.
Examine historic preservation as an area of professional employment for historians.

HIST 5310. Archival Principles and Practices. 3 Credit Hours.
Examine the principles and practices of archival management.

HIST 5315. United States Foreign Policy since 1945. 3 Credit Hours.
Explores United States national security and foreign policy since 1945, and the historical antecedents of contemporary foreign policy challenges. Emphasis on policy decisions, domestic and bureaucratic processes, the role of intelligence, and the use of force and diplomacy.

HIST 5320. Selected Topics in State and Local History. 3 Credit Hours.
Explore selected topics in state and local history, as well as readings and research in Texas history. May be repeated when topics vary.

HIST 5322. Selected Topics in American History. 3 Credit Hours.
Research and writing on selected topics in American History. May be repeated for credit when topics vary.

HIST 5325. Readings in American History to 1877. 3 Credit Hours.
Explore the major themes and critical works in selected topics of American History to 1877. Writing assignments will include the types of writing conducted most frequently by historians, including book reviews, literature reviews, and annotated bibliographies.

HIST 5326. Readings in American History since 1877. 3 Credit Hours.
Readings and discussions of selected problems in American History since 1877. May be repeated for credit when topics vary.

HIST 5335. Europe since 1945. 3 Credit Hours.
Study the main turning points in the history of postwar Europe, with an emphasis on the European integration movement. Themes include theories of integration, the democratic deficit, the transparency, accountability, and legitimacy of European policy processes, the Common Market, monetary integration and the Euro, common foreign, security, and the defense policy, social immigration policy, issues of enlargement, and relations between the European Union and non-EU entities.

HIST 5340. Readings in European History. 3 Credit Hours.
Readings and discussions of selected topics in early modern and modern European history. May be repeated for credit when topics vary.

HIST 5342. Selected Topics in European History. 3 Credit Hours.
Research and writing on selected topics in European history. May be repeated for credit when topics vary.

HIST 5360. Readings in World History. 3 Credit Hours.
Readings and discussion of selected topics in the history of regions and countries outside of Europe and the United States. May be repeated for credit when topics vary.

HIST 5362. Selected Topics in World History. 3 Credit Hours.
Research and writing on selected topics in World history. May be repeated for credit when topics vary. Prerequisite(s): None.

HIST 5380. Historiography and Historical Method. 3 Credit Hours.
Explore various ideological schools of thought in the study of history. Emphasis on recent trends and techniques in historical writing. Prerequisite(s): HIST 5300 and full admission to the graduate program or permission of instructor.

HIST 5388. History Problems. 1-6 Credit Hours.
Conference course exploring various topics in the study of history, with independent reading, research, and discussion, under supervision of senior professor.

HIST 5391. History Practicum. 3 Credit Hours.
Gain professional experience 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. May be repeated once for credit. Prerequisite(s): Permission of instructor and department chair. Field experience fee $75.

Homeland Security (HLS)

HLS 5090. Comprehensive Exam. 0 Credit Hours.
The study and integration of Homeland Security knowledge in order to take the Homeland Security comprehensive exam for non-thesis students. Non-thesis students should register for the comprehensive examination during their final semester of graduate coursework, or upon permission of advisor. All comprehensive examinations will be written. A maximum of three attempts will be allowed. Thesis students do not take this examination.

HLS 5198. Homeland Security Thesis. 1-3 Credit Hours.
Prepare and write a graduate thesis in the field of Homeland Security. This course represents a student's initial and continuing thesis enrollment. At least six total hours is required to complete the thesis requirement. The student continues to enroll in this course until the thesis is submitted and the thesis is successfully defended.

HLS 5300. Linear Regression. 3 Credit Hours.
Introduction to multiple OLS linear regression, use of statpaks and outputs. This course assumes basic competency in upper-level, undergraduate statistics (3 semester hours) and prepares students for comp exams. Prerequisite: undergraduate or graduate coursework in statistics, or instructor approval. This course is cross-listed with CRIJ 5300; only one may be taken for credit. Prerequisite: 3 semesters hours of upper-level, undergraduate statistics, or approval of instructor.

HLS 5301. Advanced Criminology. 3 Credit Hours.
In-depth examination of major theoretical perspectives of crime and delinquency. Theories are analyzed for their logical and empirical adequacy in light of what is known about the distribution of crime. Prerequisite: undergraduate or graduate coursework in criminology/victimology, or instructor approval. This course is cross-listed with CRIJ 5301; only one may be taken for credit. Prerequisite: 3 semesters hours of upper-level, undergraduate or graduate criminology/victimology, or approval of instructor.

HLS 5303. Race and Ethnicity. 3 Credit Hours.
Addresses issues related to racial and ethnic minorities and crime. Perceptions of race, class, offending, and victimization are examined. Disparities in offending, victimization, law enforcement practices, trial processes, and sentencing are examined in depth. This course is cross-listed with CRIJ 5303; only one may be taken for credit.
HLS 5304. Advanced Research Methods. 3 Credit Hours.
The application of social scientific research methods that focus on
criminal justice phenomena. Students critically examine research
designs and published research. Students produce acceptable research
proposals. This course is cross-listed with CRIJ 5304; only one may be
taken for credit. Prerequisite: Undergraduate course in Research Methods
or approval of instructor.

HLS 5306. Program Evaluation. 3 Credit Hours.
Introduces student to program evaluation, the need for program
evaluations, and the methods used to conduct the research. This
course is cross-listed with CRIJ 5306; only one may be taken for credit.
Prerequisite: Undergraduate course in Research Methods or approval of
instructor.

HLS 5307. Homeland Security. 3 Credit Hours.
Study the strategic, legal, policy, operational, and organizational issues
associated with the defense of the U.S. homeland from foreign and
domestic terrorist threats. Topics include legal issues in Homeland
Security, effective interfacing between local, state, and federal agencies,
emergency management operations, and planned response strategies.
Maybe crosslisted with CRIJ 5307. Only one may be taken for credit.

HLS 5308. Victimology. 3 Credit Hours.
This course includes a comprehensive study of victimization, including
the relationship between the victims and offenders, and their interaction
with the criminal justice system. Students will provide a literature review
on a topic of interest.

HLS 5309. Terrorism. 3 Credit Hours.
Examine the definitions, history, beliefs, practices, organizational
structure, and conflicts involved in terrorist activities. Address funding
and criminal connections with terrorist organizations, and discuss efforts
at counterterrorism as well as the psychological aspects of suicide
terrorism. Cross-listed with CRIJ 5309; only one may be taken for credit.

HLS 5310. Graduate Proseminar. 3 Credit Hours.
Introduces students to the department and faculty. Emphasis placed
on effective study habits and writing skills associated with research, as
well as other activities/parameters that will assist the student in being
successful in the program. This course is cross-listed with CRIJ 5315;
only one may be taken for credit.

HLS 5310. Human Resources Comprehensive Examination. 0 Credit
Hours.
Study and take the human resources examination for non-thesis
students. Register for the comprehensive examination during final
semester of graduate coursework, or upon permission of advisor. All
comprehensive examinations will be written, but an oral component may
also be required. A maximum of three attempts will be allowed. Thesis
students do not take this examination.

HRM 5302. Human Resource Management. 3 Credit Hours.
Prerequisite(s): Management Leveling.

HRM 5303. Managing Human Resource Development. 3 Credit Hours.
Study of talent development program design and management, dominate
learning process models and theories, and the changing nature of
work. Identify strategic considerations of an increasingly global and
diverse workforce on learning program design, development and
implementation. Investigate recent trends in instructional design and
learning technologies. Prerequisite: Management Leveling.

HRM 5305. Human Resource Law. 3 Credit Hours.
Examine legal issues and regulatory processes related to employment
relationships, equal employment opportunity and affirmative action,
privacy, employment testing and staffing, compensation and benefits,
employee/labor relations, and occupational health and safety.

HRM 5307. Human Resource Consulting and Job Analysis. 3 Credit
Hours.
Study theories, strategies, operational issues and research related
to conducting job analyses. Learn job description and specification
development. Emphasis is placed on using appropriate techniques
to acquire measure, assess and use information gathered in the work
place. Explore and develop consulting skills as used in the HR field.
Field projects are used extensively. Prerequisite(s): HRM 5302 or the
permission of instructor.

HRM 5310. The Adult Learning Environment. 3 Credit Hours.
Examine learning patterns, interests and participation among adults, with
implications for training and development programs. Particular attention
is given to the joint responsibility for learning between trainer and adult
participants.
HRM 5314. Workforce Planning and Employment. 3 Credit Hours.
Study of the legal, ethical and organizational considerations related to the process of planning, sourcing, recruiting, assessing, selecting, placing, and retaining a qualified workforce. Emphasis is placed on decision making and strategic considerations in forecasting, measurement and evaluation, equal employment opportunity, employer brand management, and talent management. Prerequisites: Management Leveling.

HRM 5315. Employee Benefits and Services. 3 Credit Hours.
Examine legal, social and technical issues and research surrounding current trends in employee benefit programs. Analyze group health, disability and life insurance, retirement planning, time-off (leave) and wellness programs. Emphasis is placed on program administration, implementation and evaluation. Prerequisite(s): HRM 5302 or permission of instructor.

HRM 5316. Compensation Management. 3 Credit Hours.
Explore how a variety of factors such as labor market, organization, and job characteristics affect (or are correlated with) the levels and methods of pay. Examine recent pay related issues such as pay inequality and gender pay gap. Emphasis is placed on the development of sound compensation programs which consider current trends, legal implications and social requirements. Prerequisites: Management Leveling.

HRM 5324. Employment and Labor Relations. 3 Credit Hours.
Explore 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. Examine labor law and legal issues in labor relations, including the National Labor Relations Act and the functions of the NLRB. Negotiation skills are developed in mock labor contract negotiations. Prerequisite(s): HRM 5302 and HRM 5301 or HRM 5305 or concurrent enrollment.

HRM 5326. Human Resource Management Seminar. 3 Credit Hours.
Study selected topics in human resource management. Engage in independent research, reading, and discussions under direction of professor. Topics may vary according to student need. May be repeated once for credit when topics vary.

HRM 5330. Global Human Resource Management Practices. 3 Credit Hours.
Study basic international business concepts, cultural literacy, and discipline specific content applied to practical experiences and activities in a visited foreign country. 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. Student may complete a maximum of six hours of COBA sponsored study abroad toward degree completion. Prerequisite(s): Admission into a COBA graduate program and permission of instructor. Field experiences fee $75.

HRM 5334. Professional Issues in Human Resource. 3 Credit Hours.
Examine contemporary professional issues in human resource management. Emphasis on current issues, ethical decision-making processes, work place investigations, and continued professional development. Successful completion of a comprehensive competency examination covering the principal areas within the human resource management functions is required. Prerequisite(s): BUSI 5310, HRM 5302, HRM 5303, HRM 5305, HRM 5314 and HRM 5316, or concurrent enrollment in each.

HRM 5384. Human Resource Management Internship. 3 Credit Hours.
Gain professional 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 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(s): Completion of 12 graduate semester hours in Human Resource Management, preregistration coordination and permission of course instructor. Field experiences fee $75.

HRM 5388. Human Resource Management Problems. 3 Credit Hours.
Study selected problems in human resource management, and conduct research within a specific area of interest. Engage in independent research, reading, and discussions as directed by the responsible professor. Topics may vary according to student need. Prerequisite(s): Permission of department chair.

 Liberal Studies (LIBS)

LIBS 3300. Intro to Liberal Studies. 3 Credit Hours.
(WI) Students are introduced to the major issues in interdisciplinary studies. Students research how their academic concentrations emerged as distinct disciplines and produce a research paper and presentation of their findings. Prerequisite(s): ENGL 1301.

LIBS 4395. Liberal Studies Capstone. 3 Credit Hours.
(WI) 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 present written reports on their research, supplemented by appropriate internet and multimedia materials, as well as portfolios documenting their research. This is a writing intensive course for Liberal Studies majors. Prerequisite(s): LIBS 3300 and senior standing.

LIBS 5090. Comprehensive Examination. 0 Credit Hours.
Non-thesis students should register for the comprehensive examination during their final semester of graduate coursework, or upon permission of advisor. All comprehensive examinations will be written, but an oral component may also be required. A maximum of three attempts will be allowed. Thesis student do not take this examination.

LIBS 5300. Interdisciplinarity. 3 Credit Hours.
This course allows students to assess and to discuss various topic(s) examined from an interdisciplinary approach. Emphasis is upon investigating the contributions of interdisciplinary research in academia. Prerequisite: Graduate standing.

LIBS 5310. Interdisciplinary Methods. 3 Credit Hours.
This course investigates interdisciplinary research methods and the application of these methods. Students research, write, and present projects on topic(s) related to their focus areas. Prerequisite: Graduate standing.

LIBS 5389. Special Topics. 3 Credit Hours.
Readings, discussions, and research of selected interdisciplinary topics. May be repeated for credit when topics vary. Prerequisite(s): N/A.

LIBS 5395. Interdisciplinary Thesis. 3 Credit Hours.
Scheduled when the student is ready to begin the thesis. No credit until the thesis is completed. Prerequisite(s): 24 hours graduate credit, including LIBS 5300 and LIBS 5310 completed, and consent of the MSLS Coordinator. Cannot be enrolled concurrently in LIBS 5300 or LIBS 5310.

LIBS 5398. Interdisciplinary Capstone. 3 Credit Hours.
N/A Course is being deleted. Prerequisite(s): N/A Course is being deleted.
Management (MGMT)

MGMT 3301. Principles of Management. 3 Credit Hours.
Study the basic managerial functions of planning, organizing, staffing, directing, and controlling resources to accomplish organizational goals. Special emphasis on the systems concept of management and role of the manager in each level of the organization.

MGMT 3302. Personnel and Human Resource Management. 3 Credit Hours.
Study 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 3303. Supervisory Management. 3 Credit Hours.
Investigate the role, function, and responsibilities of the supervisor in modern organizations through study of sociological and psychological theories in human relations. Emphasis is on development of supervisory skills in communications, motivation, discipline, morale, and grievances as they arise in superior-subordinate relationships. Prerequisite(s): MGMT 3301 or permission of department chair.

MGMT 3310. Entrepreneurship I. 3 Credit Hours.
Learn how to identify and evaluate opportunities that may become the foundation for a new business ventures. Learn to develop a new business venture using the business model canvas. Assess the value of a concept and explore opportunity recognition, innovation and creativity, the legal structure of business, and types of entrepreneurial ventures. Prior knowledge in basic business fundamentals and good writing skills are preferred, but not required.

MGMT 3350. Organizational Behavior. 3 Credit Hours.
(WI) Analyze behavior of people at work in all types of organizations. Learn 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. Prerequisite(s): MGMT 3301 and BUSI 3301.

MGMT 4302. Productive Relationships. 3 Credit Hours.
Examine the practicals and theories related to dealing with human behavior. Emphasis on identifying and classifying behavior in order to better understand behavior and to develop strategies for effectively managing interpersonal relationships. A materials fee of $45 is required for needed course materials. Prerequisite(s): MGMT 3301 and BUSI 3301.

MGMT 4303. Managing Compensation. 3 Credit Hours.
Understand the various factors that affect the two important compensation decisions: How to (pay method) and how much (pay level) an organization should pay its employees. Emphasis is placed on the understanding of basic concepts, theories, current trends, and legal and social requirements related to the issue of compensation. Prerequisites: BUSI 3301 and MGMT 3302.

MGMT 4304. Recruitment and Selection of Human Resources. 3 Credit Hours.
Study recruitment and selection of human resources for organizations. Examine optimal utilization of human resources within organizations, and the use of tests and other techniques in human resource management. Prerequisite(s): MGMT 3302 and BUSI 3301.

MGMT 4305. Human Resource Development. 3 Credit Hours.
Learn practical and theoretical approaches to training and development of employees in an organization. Study role and scope of training and development functions, philosophies, strategies, needs analysis, development of program content, and evaluation Prerequisite(s): MGMT 3302 and BUSI 3301.

MGMT 4306. Employer and Labor Relations. 3 Credit Hours.
Study collective bargaining, labor market fundamentals, unionism, and related issues of labor economics. Prerequisite(s): MGMT 3301.

MGMT 4310. Entrepreneurship II. 3 Credit Hours.
Develop skills required to manage and grow a new venture past the start-up. Apply general business concepts to the challenges facing entrepreneurs. Draw on a broad range of business disciplines including management, marketing, finance, and accounting to develop a business plan. As such, background knowledge in these areas, as well as good writing skills, is strongly preferred, but not required. Prerequisite(s): MGMT 3301 or permission of department chair.

MGMT 4321. Production and Operations Management. 3 Credit Hours.
Study industrial organization, scientific management, planning and control, building locations and layouts, wage rates, corporation relationships, and research. Prerequisite(s): MGMT 3301 and BUSI 3311.

MGMT 4322. Management Science. 3 Credit Hours.
Learn quantitative techniques of decision-making with an emphasis on managerial needs. Study discipline of continuous improvement in managerial decision-making. Analyze problem definition, data gathering and analysis, process improvement, improvement control, and be able to make recommendations to improve business results. Prerequisite(s): MGMT 3301 and BUSI 3311.

MGMT 4325. Leadership Theory and Practice. 3 Credit Hours.
Study leadership theories and issues with practical application of newer leadership models in contemporary organizations. Explore facets of both leadership and followership, along with the impact of the particular organizational setting and situation. Explore situation analysis through active reflection, analysis of case studies, simulations, and popular business press treatment of leadership situations. Prerequisite(s): BUSI 3301 and MGMT 3301.

MGMT 4340. Management Seminar. 3 Credit Hours.
Study current issues in management. Analyze readings from current management publications and other related periodicals. May be repeated for credit when topics vary. Prerequisite(s): 15 hours of MGMT or permission of department chair.

MGMT 4354. International Management. 3 Credit Hours.
Study the international dimensions of the marketplace and environment related to management. Examine the role of culture within international strategic management, organizational behavior and human resource management. Prerequisite(s): MGMT 3301, BUSI 3301 and BUSI 3344.

MGMT 4356. Global Management Practices. 3 Credit Hours.
Study basic international business concepts, cultural literacy, and discipline specific content applied to practical experiences and activities in a visited foreign country. 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. Prerequisite(s): Junior or senior standing. BUSI 4354, MGMT 4356, or MKTG 4356 may not be taken concurrently. Field assignment fee of $75.
MGMT 4360. Emergency Management. 3 Credit Hours.
Learn theories, principles and approaches to emergency management. Study the Philosophy of Comprehensive Emergency Management (CEM) with its four phases of preparedness, mitigation, response, and recovery. Analyze past disasters presented along with their attendant policy formations leading to the FEMA all hazards approach.

MGMT 4370. Introduction to Project Management. 3 Credit Hours.
This course provides a comprehensive overview of project management. The culture, principles, and basic techniques of project management are addressed using the project life-cycle as the primary organizational guideline. The project management functions of planning, organizing, motivating and controlling with an emphasis on the application to business and technology are explained. Basic tools of project management such as work breakdown structure, scheduling, earned value analysis, and risk management are explained and demonstrated. Prerequisite(s): BUSI 3301, BUSI 3311, MGMT 3301; Materials Fee: $35 for a simulation experience.

MGMT 4384. Management Internship. 3 Credit Hours.
Participate in a management related position with a public or private business organization that is preapproved and supervised. May be repeated for a total of 6 credit hours. Prerequisite(s): MGMT 3301 and permission of department chair. Field experiences fee: $75.

MGMT 4388. Management Problems. 1-3 Credit Hours.
Study selected problems in management. Engage in independent research, reading and discussions under the personal direction of the instructor. Topics may vary according to student need. May be repeated with permission of department chair. Prerequisite(s): Senior standing and permission of department chair.

MGMT 5090. Management Comprehensive Examination. 0 Credit Hours.
Study and take the management examination for Non-thesis students. Register for the comprehensive examination during final semester of graduate coursework, or upon permission of advisor. All comprehensive examinations will be written, but an oral component may also be required. A maximum of three attempts will be allowed. Thesis students do not take this examination.

MGMT 5301. Organizational Behavior. 3 Credit Hours.
Learn behavioral theory in organizational context. Study individual and group dynamics in the business environment. Specific emphasis given to leadership, motivation, communication, employee supervision, and morale. Prerequisite(s): Management leveling.

MGMT 5302. Sustainable Business: A One Planet Approach. 3 Credit Hours.
The leaders of today's organizations must navigate the challenges surrounding sustainability. Sustainability relates to the creation of long-term value for the triple bottom line of People, Planet and Profit through the adroit management of a firm's social, environmental, and economic impact. This course will provide students with the understanding and tools necessary to integrate sustainability into the business disciplines (marketing, finance, operations, etc.), emphasize how sustainability challenges can be turned into strategic competitive advantage, explore emerging market opportunities for sustainable products and services, and underscore the role of leadership in innovating, organizing, and managing the changes necessary to adopt a "one-planet" approach to survive and thrive in this rapidly changing environment. Prerequisite(s): Management leveling.

MGMT 5305. Analytical Methods of Management Decisions. 3 Credit Hours.
Study analytical techniques which may be used to facilitate decisions analysis. Learn concepts of utility, break even analysis, network models, linear programming, game theory and computer simulation. Use course activity to survey analytical techniques which may be used to facilitate analysis of alternative decisions and practice in applying the techniques through problem solving. Prerequisite(s): BUSI 3311 or MATH 3300 and graduate standing.

MGMT 5306. Influence Organizational Productivity By Interpersonal Relationships. 3 Credit Hours.
Learn the practicals and theories related to interpersonal behavior and its influence on organizational productivity. Learn to identify and classify behavior in order to better understand behavior and to develop strategies for creating productive relationships with others. Particular emphasis is directed toward the impact of interpersonal behavior in business organizations and the potential effect on productivity. A materials fee of $45 is required for needed course materials.

MGMT 5307. Responsibilities and Ethics of Leadership. 3 Credit Hours.
Analyze an organization's social and environmental responsibilities to its employees, customers, and other key stakeholder groups. Emphasis is given to the case study method for evaluating the performance of various organizations. Develop a theoretical framework for understanding ethics, principles and values of leadership as they affect the organization, the organizational environment, and society. Prerequisite(s): Management Leveling.

MGMT 5308. Designing Organizations for Sustainable Effectiveness. 3 Credit Hours.
Examine theories, processes and "fit" models of organization design and alignment of structure, technology, information systems, reward systems, people and culture, and management processes with organizational goals. Emphasis is on maximizing the triple bottom line for sustainable effectiveness and how organizations can be led and managed so they are economically, socially, and environmentally sustainable. Prerequisite(s): Management leveling.

MGMT 5309. Global Leadership for Sustainability. 3 Credit Hours.
This course is the integrating capstone course for the MS One Planet Leadership program. Examines both mainstream and emerging theories and approaches to leadership, including models of leadership for sustainability and developing the global mindset necessary for flourishing enterprises to maximize the triple bottom line. Applies leadership principles and models to varied organizational situations with a primary focus on developing leaders who can effectively deal with the economic, social, and environmental challenges global leaders face in today's volatile and chaotic business climate. A culminating capstone sustainability case study project is a required part of the course. Students must make a B on this project to pass the course and a B in the course to graduate. Prerequisite(s): Students must have completed or be currently enrolled in the core courses for the program, MGMT 5301, MGMT 5308, & MGMT 5368, or instructor approval.

MGMT 5310. Leadership Formation and Development. 3 Credit Hours.
This course examines both mainstream and emerging theories and approaches to leadership development and formation, with an emphasis on case study and experiential methods of examining the application of leadership principles and models. It provides each student the opportunity to focus on developing their personal and organizational abilities and skills to become triple bottom line leaders who can better resolve the economic, social and environmental issues of the global, Internet age. Prerequisite(s): Management leveling.
MGMT 5311. Sustainable Operations & Services. 3 Credit Hours.
Focuses on providing students with a broad understanding and knowledge of operations and service management concepts. Emphasis will be placed on incorporating various aspects of sustainability, while designing, managing and controlling business operations and services. In addition, students will be exposed to several analytical tools, models and methodologies that are necessary to design, develop and evaluate various sustainable business operations. Prerequisites: Management and Statistics Leveling.

MGMT 5315. International Management for Sustainability. 3 Credit Hours.
This course will focus on international business management through a sustainability lens. Seminal and current research along with relevant real-world examples will be used to expose students to theories and frameworks pertinent to international business functions and cultural management. The course will sensitize students to global business environment opportunities and stimulate generation of teambased international business solutions contributing to sustainable development and consistent with the triple bottom line approach. Prerequisite(s): Management Leveling.

MGMT 5320. Negotiations. 3 Credit Hours.
Learn distributive negotiation, integrative negotiation, biases and pitfalls in negotiation, building trust, developing a negotiation style, power, persuasion, ethics, creativity and problem solving. Theoretical lecture/discussion and practical application/skill development, including in-class role plays, are used in this course. A materials fee of $40 is required for needed course materials.

MGMT 5330. Cross Sector Partnerships for Sustainability. 3 Credit Hours.
Cross-sector partnerships have proven to be one of the most effective approaches to complex environmental challenges. Through case studies of environmental partnerships, literature on collaboration strategies, reflective journals and field research, students will develop the skills necessary to lead future collaborative sustainability initiatives. Prerequisite(s): Management Leveling.

MGMT 5340. Management Seminar. 3 Credit Hours.
Explore selected management topics of current importance to business management. May be repeated once for credit when topics vary.

MGMT 5345. Entrepreneurship. 3 Credit Hours.
The course is designed to cover the fundamentals of entrepreneurship. Students will be provided with tools and methods for successfully developing and launching a new venture. Students will have an opportunity to develop a business plan, and will be exposed to concepts such as creativity, risk-taking, and sustainable entrepreneurship.

MGMT 5350. Project Management. 3 Credit Hours.
Study a comprehensive overview of project management. Analyze culture, principles, and basic techniques of project management using the project life cycle as the primary organizational guideline. Learn project management functions and use basic tools of project management such as work breakdown structure, scheduling, contracting, earned value analysis, and risk management. A materials fee of $35 is required to support a learning simulation.

MGMT 5356. Global Management Practices. 3 Credit Hours.
Study basic international business concepts, cultural literacy, and discipline specific content applied to practical experiences and activities in a visited foreign country. 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. Prerequisite(s): Admission into a COBA graduate program and permission of instructor. Field experiences fee $75.

MGMT 5368. Development & Change for Learning Organizations. 3 Credit Hours.
Students apply strategies for developing organizational learning using behavioral science. Viewing organizations as complex ecological systems, students will master systems thinking related to organization development so that change efforts improve both the organization and the wider systems within which it operates. Prerequisite(s): MGMT 5301.

MGMT 5384. Management Internship. 3 Credit Hours.
Participate in a management related position with a public or private business organization that is preapproved and supervised. May be repeated for a total of 6 hours credit. Prerequisite(s): Permission of department chair. Field experiences fee $75.

MGMT 5388. Management Problems. 1-6 Credit Hours.
Study problems, topics, and perform research in management within the student’s area of interest. Engage in independent research, reading and discussions under the personal direction of the instructor; topics may vary according to student need. This course offers students the opportunity to study. Prerequisite(s): Permission of department chair.

Marketing (MKTG)

MKTG 3301. Marketing. 3 Credit Hours.
Examine principles and concepts of marketing goods, services, and intangibles by profit and non-profit organizations in a free enterprise and global economy.

MKTG 3312. Public Relations. 3 Credit Hours.
Study the techniques used in planning public relations programs for businesses, schools, churches, and civic associations. Learn press relations, crisis management, advertising, speech writing, and campaign activities. Prerequisite(s): MKTG 3301 and BUSI 3301.

MKTG 3315. Personal Selling. 3 Credit Hours.
Study the role and techniques of personal selling as a component of the marketing mix. Prerequisite(s): MKTG 3301 and BUSI 3301.

MKTG 3316. Consumer Behavior. 3 Credit Hours.
Analyze individual and group behavior of people performing in consumer role. Study buying motives, social class, and research techniques in consumer behavior. Prerequisite(s): MKTG 3301 and BUSI 3301.

MKTG 3317. Retailing. 3 Credit Hours.
Learn fundamental operations of retailing, studying of buying practices, pricing, store locations and layout, sales promotions, personnel management, and stock control. Study design to aid the student seeking a general knowledge of the retail field as well as those specializing in Marketing. Prerequisite(s): MKTG 3301 and BUSI 3301.

MKTG 3318. Promotional Strategy. 3 Credit Hours.
Study a controlled, integrated program of promotional variables. Learn how 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(s): MKTG 3301 and BUSI 3301.

MKTG 3320. Marketing Research. 3 Credit Hours.
Study accurate, objective, and systematic gathering, recording, and analyzing of data about problems relating to marketing goods and services. Prerequisite(s): MKTG 3301, BUSI 3301 and BUSI 3311.

MKTG 4301. Advertising. 3 Credit Hours.
Analyze advertising in modern media. Study the history, design, effects of advertising, and the uses of different media for advertising purposes. Prerequisite(s): MKTG 3301 and BUSI 3301.
MKTG 4302. Services Marketing. 3 Credit Hours.
Learn about service environment. Analyze the most successful service-oriented industries and firms within the world's fastest-growing economic sector. Prerequisite(s): MKTG 3301 and BUSI 3301.

MKTG 4305. Digital and Internet Marketing. 3 Credit Hours.
This course provides a theoretical and practical understanding of digital marketing. Students will learn various digital marketing practices such as managing and executing search engine optimization campaign (e.g., Google AdWords), building an effective website, and converting clicks into purchases through an experiential learning approach. Prerequisite: MKTG 3301.

MKTG 4316. Marketing Strategy. 3 Credit Hours.
Learning how to formulate and implement a strategic marketing plan to try to achieve a sustainable competitive advantage. This course uses practical approaches, including case studies and a marketing plan project. Prerequisites: MKTG 3301, MKTG 3316, and MKTG 3320 or permission of the instructor.

MKTG 4340. Marketing Seminar. 3 Credit Hours.
Examine the current issues/topics in Marketing. May be repeated for credit if the topic varies. Prerequisite(s): MKTG 3301, BUSI 3301 and permission of instructor.

MKTG 4354. International Marketing. 3 Credit Hours.
Study comparative marketing systems, including economic, social, technological, governmental, and political environments as they affect international marketing operations. Prerequisite(s): MKTG 3301, BUSI 3301 and BUSI 3344 or permission of department chair.

MKTG 4356. Global Marketing Practices. 3 Credit Hours.
Study basic international business concepts, cultural literacy, and discipline specific content applied to practical experiences and activities in a visited foreign country. A study abroad at the student's expense is required. Student may complete a maximum of six hours of SOBA sponsored study abroad toward degree completion. Field assignment fee: $75. Prerequisite(s): MKTG 3301, junior or senior standing and permission of instructor. BUSI 4354, MGMT 4356, or MKTG 4356 may not be taken concurrently.

MKTG 4384. Marketing Internship. 1-6 Credit Hours.
Participate in a marketing-related position with a public or private business organization that is preapproved and supervised. Acquiring a new marketing-related position after approval of the internship or the approval of experiences beyond the scope of the student's present job. May be repeated for a total of 6 hours credit. Prerequisite(s): MKTG 3301, Faculty Sponsorship, and permission of department chair. Field experiences fee: $75.

MKTG 4388. Marketing Problems. 1-6 Credit Hours.
Study of selected problems in marketing. Engage in independent research, reading and discussions under the personal direction of the instructor, topics may vary according to student need. May be repeated with permission of department chair. Prerequisite(s): Senior standing and permission of department chair.

MKTG 4389. Special Topics in Marketing. 3 Credit Hours.
Examine current topics in marketing. Explore required readings from current marketing publications and other related periodicals. May be repeated for credit when topics vary. Prerequisite(s): 9 hours of MKTG.

MKTG 5308. Marketing Management. 3 Credit Hours.
Study the planning and coordination of marketing functions specifically related to product, pricing, promotion, and distribution strategies. Explore case analysis and participate in presentation of results. Prerequisite(s): Marketing Leveling.

MKTG 5309. Marketing Strategy. 3 Credit Hours.
Develop the role of product, pricing, promotion, and channel and physical distribution in the development of a firm's integrated marketing program. Study cases used to evaluate and compose alternative courses of action.

MKTG 5310. Integrated Marketing Communications. 3 Credit Hours.
Study concepts associated with Integrated Marketing Communications (IMCs). Learn an experiential learning approach, wherein students apply the concepts learned in the classroom to the creation of an IMC campaign for an organization.

MFT 5090. Marriage and Family Therapy Theory Comprehensive Examination. 0 Credit Hours.
Study and take the marriage and Family Therapy Theory examination for Non-thesis students. Register for the comprehensive examination during final semester of graduate coursework, or upon permission of advisor. All comprehensive examinations will be written, but an oral component may also be required. A maximum of three attempts will be allowed. Thesis student do not take this examination.

MFT 5301. Introduction of Marriage and Family Therapy Theory. 3 Credit Hours.
Explore the historical development, theoretical and empirical foundations of systems theory including a survey of the major models of marriage, couple and family therapy.

MFT 5302. Advanced Marriage and Family Therapy Theory. 3 Credit Hours.
Examine contemporary therapeutic directions and core competencies in the field of marriage and family therapy.
MFT 5307. Ethics in Marriage and Family Therapy. 3 Credit Hours.
Analyze ethical issues related to the profession and practice of Marriage and Family Therapy including the AAMFT Code of Ethics, professional identity, professional organizations and state licensure.

MFT 5309. Assessment and Treatment of Diverse Families. 3 Credit Hours.
Learn the impact of diversity, power, and privilege as related to culture, class, ethnicity, gender, sexual identity, and religion in families and the influence of context on couple and family treatment. Assess the use of genograms and treatment will focus on effectively helping multi-stressed families.

MFT 5313. The Person of the Therapist Identification. 3 Credit Hours.
Study identification and the development of the person as the therapist, which serves to hone skills in therapy.

MFT 5350. Marriage and Family Therapy Research Methods. 3 Credit Hours.
Learn research methodology, data analysis and the evaluation of research in couple and family therapy. Study how research informs, Marriage and Family Therapy common factors, and evidence based practice.

MFT 5351. Diverse Couples Assessment and Treatment. 3 Credit Hours.
Analyze theoretical models and skills necessary for effective treatment of couple relationship problems. Seminar format will offer training towards certification in Gottman Method Couples Therapy, as well as introduction to Emotion Focused Couples Therapy. Prerequisite(s): MFT 5301.

MFT 5352. Gender and Sexuality in Marriage and Family Therapy. 3 Credit Hours.
Learn male and female sexual anatomy, and address male and female sexual problems and their treatment. Special Emphasis on sex therapy, including cultural diversity, age, disability and illness, sexual abuse and rape.

MFT 5353. Medical Family Therapy. 3 Credit Hours.
Examine the role of the marriage and family therapist in larger behavioral health systems. Learn collaborative manner addressing the unique psychosocial problems of individuals, couples, and families with acute and chronic medically related concerns. Study principles of individual diagnosis of mental illness as defined in the DSM and the implications for systematically based treatment.

MFT 5355. Treating Military Families. 3 Credit Hours.
Explore unique characteristics of military families and provide an overview of assessment and treatment options for common clinical concerns presented by military families.

MFT 5356. Combat Related Trauma. 3 Credit Hours.
Explore the unique characteristics and symptoms of grief, PTSD and combat related trauma. Study systemic treatment options in order to help clients meet their treatment goals.

MFT 5357. Common Factors in Marriage and Family Therapy. 3 Credit Hours.
Explore therapeutic relationship, client factors and hope/expectancy, and their implications for clinical practice.

MFT 5358. Group Process in Marriage and Family Therapy. 3 Credit Hours.
Study human relationships in groups, particularly in the group therapy context. Explore the application of various aspects of group dynamics including leadership, motivation, perception, power and decision making.

MFT 5371. Advanced Couples Interventions. 3 Credit Hours.
Study advanced skills and interventions in Gottman Method Couple Therapy and Emotion Focused Couple Therapy. Prerequisite(s): MFT 5301, MFT 5302 and MFT 5351.

MFT 5372. Relationship Education. 3 Credit Hours.
Study multiple approaches to providing relationship education directly to couples and provides students the opportunity to prepare presentations that could be delivered in real-world settings. Prerequisite(s): MFT 5301, MFT 5302 and MFT 5351.

MFT 5380. Addiction in Marriage and Family Therapy. 3 Credit Hours.
Study systemic framework for understanding addictions and how they impact the family system. Prerequisite(s): MFT 5301 and MFT 5302.

MFT 5381. Adolescent in Family Therapy. 3 Credit Hours.
Explore marriage and family therapy theories in relation to treatment of various disorders in adolescence. Study relational, systemic, and contextual factors that are considered in and behavioral health systems which treat adolescents. Prerequisite(s): MFT 5301, MFT 5302 and PSYC 5304.

MFT 5382. Delinquency in Marriage and Family Therapy. 3 Credit Hours.
Study juvenile delinquency and adolescent substance use through systemic and contextual lens. Examine and compare MFT theories related to juvenile delinquency and adolescent substance use. Prerequisite(s): MFT 5301, MFT 5302, PSYC 5304 and MFT 5381.

MFT 5383. Marriage and Family Therapy Pre-Practicum. 3 Credit Hours.
Study interviewing and training skills in the Marriage and Family Therapy program while preparing for field placement. Gain an understanding of Marriage and Family Therapists, how clients change and basic therapeutic strategies. Explore basic skills and tools necessary to become competent clinicians. Use role playing, videotapes, and video cameras as part of the learning process. Prerequisite(s): MFT 5301.

MFT 5391. Clinical Practicum I. 3 Credit Hours.
Gain experience in marriage and family therapy by providing therapy services in the on-campus clinic and additional approved practicum sites while under supervision of the Marriage and Family Therapy faculty. Demonstrate appropriate levels of competency, assessed through direct supervision, video supervision, as well as case conference, maintaining appropriate documentation of clinical work, and meeting clinical hours requirement as described in the departmental handbook. Prerequisite(s): MFT 5301, MFT 5307 and MFT 5383. Field experience fee - $75.

MFT 5392. Clinical Practicum II. 3 Credit Hours.
Gain experience in marriage and family therapy by providing therapy services in the on-campus clinic and additional approved practicum sites while under supervision of the Marriage and Family Therapy faculty. Demonstrate appropriate levels of competency, assessed through direct supervision, video supervision, as well as case conference, maintaining appropriate documentation of clinical work, and meeting clinical hours requirement as described in the departmental handbook. Prerequisite(s): MFT 5301, MFT 5307, MFT 5383 and MFT 5391. Field experience fee - $75.
MFT 5393. Clinical Practicum III. 3 Credit Hours.
Gain experience in marriage and family therapy by providing therapy services in the on-campus clinic and additional approved practicum sites while under supervision of the Marriage and Family Therapy faculty. Demonstrate appropriate levels of competency, assessed through direct supervision, video supervision, as well as case conference, maintaining appropriate documentation of clinical work, and meeting clinical hours requirement as described in the departmental handbook. Prerequisite(s): MFT 5301, MFT 5307, MFT 5383, MFT 5391 and MFT 5392. Field experience fee - $75.

MFT 5394. Clinical Practicum IV. 3 Credit Hours.
Gain experience in marriage and family therapy by providing therapy services in the on-campus clinic and additional approved practicum sites while under supervision of the Marriage and Family Therapy faculty. Demonstrate appropriate levels of competency, assessed through direct supervision, video supervision, as well as case conference, maintaining appropriate documentation of clinical work, and meeting clinical hours requirement as described in the departmental handbook. Prerequisite(s): MFT 5301, MFT 5307, MFT 5383, MFT 5391, MFT 5392 and MFT 5393. Field experience fee - $75.

MFT 5397. Clinical Practicum V. 3 Credit Hours.
Gain experience in marriage and family therapy by providing therapy services in the on-campus clinic and additional approved practicum sites while under supervision of the Marriage and Family Therapy faculty. Demonstrate appropriate levels of competency, assessed through direct supervision, video supervision, as well as case conference, maintaining appropriate documentation of clinical work, and meeting clinical hours requirement as described in the departmental handbook. Prerequisite(s): MFT 5301, MFT 5307, MFT 5383, MFT 5391, MFT 5392, and MFT 5394. Field experience fee - $75.

Mathematics (MATH)

MATH 3300. Principles of Statistics. 3 Credit Hours.
Data collection and analysis, elementary probability, discrete and continuous distributions, regression, correlation, estimation, and nonparametric methods. This course cannot be counted on a degree program for a mathematics major. Credit cannot be awarded for both MATH 3300 and MATH 2450. Prerequisite(s): MATH 1314.

MATH 3301. Number Theory. 3 Credit Hours.
The study of congruence relations, rational integers, diophantine equations, quadratic reciprocity law, linear forms, integral domains, and related topics. Prerequisite(s): 6 hours of MATH including MATH 2413.

MATH 3302. Principles of Geometry. 3 Credit Hours.
Euclidean geometry topics including logic, properties of parallel lines, triangles, quadrilaterals, circles, measurement, similarity, proportionality, and transformations. Technology will be incorporated where appropriate. Credit for both MATH 3302 and MATH 4302 will not be awarded. Prerequisite(s): MATH 2413.

MATH 3303. Concepts of Elementary Math I. 3 Credit Hours.
Problem solving, sets, functions, logic, elementary number theory, concepts of properties of whole numbers, rational numbers, integers, and real numbers. Designed for those planning to teach in elementary school. Prerequisite(s): MATH 1314 and Junior standing.

MATH 3305. Concepts of Elementary Math II. 3 Credit Hours.
Basic concepts in algebra, geometry, calculators and computers, metric system and measurement, and probability and statistics. Meets basic probability requirement for math majors, certifying teachers, and interdisciplinary studies. Prerequisite(s): MATH 3303.

MATH 3306. Differential Equations. 3 Credit 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(s): MATH 2414.

MATH 3309. Algebraic Function. 3 Credit Hours.
Survey of elements from Algebra, Trigonometry, Geometry, Probability and Statistics, Finite Mathematics, and Calculus. The class places a strong emphasis on real-world applications and interpretation. Technology will be incorporated where appropriate.

MATH 3310. Discrete Mathematics. 3 Credit Hours.
Introduces students to the techniques and tools of reasoning, decision making, and combinational problem solving. Topics include sets and logic, combinations, probability, relations and functions, Boolean properties, and graph theory. Prerequisite(s): MATH 1314 or MATH 3309.

MATH 3311. Probability & Statistics I. 3 Credit Hours.
This course contains the fundamentals of probability theory and the basics of statistics. Topics include probability axioms, sampling distributions, descriptive statistics, finite random variables, infinite discrete random variables, continuous random variables, and the Central Limit Theorem. Prerequisite(s): MATH 2414 and MATH 3305 or an elementary probability course.

MATH 3315. Mathematics & Technology. 3 Credit Hours.
Use of current technologies related to creating interactive presentations/documents for math as well as use of current technologies related to mathematical analysis and state certification exams.

MATH 3332. Linear Algebra. 3 Credit Hours.
A study of the theory of real vector spaces and linear transformations. Topics include vector spaces, inner product, norm, distance, subspaces, spanning sets, linear dependence and independence, bases, dimension, linear systems, coordinates, linear transformations, kernel, image, isomorphisms, inverse linear transformations, matrix representations of linear transformations, similarity, direct sums, and canonical forms. Prerequisite(s): MATH 2414 MATH 3310 or instructor's permission.

MATH 3350. Principles of Bio-Statistics. 3 Credit Hours.
An introduction to statistical methods that are applied in biology and agriculture. Use of technology and hands-on spreadsheet assignments are required in this course. Prerequisite(s): MATH 2413.

MATH 3360. Numerical Analysis I. 3 Credit Hours.
An introduction to numerical analysis. Topics are being 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. Prerequisite(s): MATH 2414 and 3 hours of COSC.

MATH 3370. An Introduction to Linear Programming. 3 Credit Hours.
The topics will include Convexity, Extreme Points, Linear Programming for efficiency of mixtures, transportation, and other economic models. Basic analysis of the simplex method and duality will be used to solve such problems and to determine the long-term usefulness of models.

MATH 3375. An introduction to Partial Differential Equations. 3 Credit Hours.
The topics will include advanced vector calculus, the heat and wave equations, separation of variables, Fourier Transforms, convolution, and geometric analysis. Prerequisite(s): MATH 2414 and PHYS 2425.
MATH 3433. Calculus III. 4 Credit 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' Theorem. Use of computer technology and laboratory assignments will be required in this course. Prerequisite(s): MATH 2414.

MATH 4302. College Geometry. 3 Credit Hours.
Euclidean geometry topics including logic, properties of parallel lines, triangles, quadrilaterals, circles, measurement, similarity, proportionality, and transformations. Additional topics include projective and non-Euclidean geometry. Technology is incorporated where appropriate. Substitutes for MATH 3302 for 4-8 certifying students. Prerequisite(s): MATH 2413.

MATH 4304. Survey of Mathematical Ideas. 3 Credit Hours.
This course is designed to bring together and supplement the technical material of other mathematics courses to communicate mathematics effectively. Topics in algebra, trigonometry, geometry, statistics, and discrete mathematics will be explored. Technology will be used where appropriate. Prerequisite(s): MATH 2413 and MATH 3302 or MATH 4302 or concurrent registration.

MATH 4304L. Survey of Mathematical Ideas Lab. 1 Credit Hour.
This lab is required for all math majors and must be taken with MATH 4304. This lab addresses and prepares students for content on the state certification exam and will reflect current state requirements for the mathematics state examinations for grade levels 7-12. All other majors requiring MATH 4304 will continue to take base course, but will not take this lab. Prerequisites: MATH 2413 and MATH 3302 or MATH 4302 or concurrent registration and Senior Standing.

MATH 4305. Concepts of Elem Math III. 3 Credit Hours.
This course is designed to develop and extend the mathematical content knowledge of prospective middle school teachers. Topics include 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 is being integrated into the curriculum where appropriate. Prerequisite(s): MATH 3305 for EC-6 and 4-8 Mathematics majors; MATH 2413 for all other students.

MATH 4309. Advanced Analysis I. 3 Credit Hours.
(WI) 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 integration. Prerequisite(s): MATH 2414.

MATH 4311. Probability & Statistics II. 3 Credit Hours.
Continuation of MATH 3311 with focus on statistical inference. Topics include the Central Limit Theorem, sampling distributions, confidence intervals, hypothesis testing, inferences based on two samples, and an introduction to ANOVA. Prerequisite(s): MATH 3311.

MATH 4320. Mathematical Modeling. 3 Credit Hours.
An advanced introduction to models related to applied sciences. Topics include applications of linear programming, scheduling, graph theory, and game theory. Prerequisite(s): MATH 2414 and 6 hours of advanced mathematics or pre-calculus.

MATH 4332. Abstract Algebra. 3 Credit Hours.
(WI) An introduction to abstract algebraic structures, including groups, rings, ideals, polynomial rings, and applications. Prerequisite(s): MATH 3332.

MATH 4380. Undergraduate Research Project. 1-3 Credit 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. Prerequisite(s): Mathematics major, senior standing, and 24 semester hours of MATH courses and permission of department chair.

MATH 4389. Special Topics in Math. 3 Credit Hours.
Topics are being selected from areas of mathematics suitable for upper level study. This course may be repeated once with permission of department chair, as topics change. Prerequisite(s): MATH 2414 and 6 hours of advanced MATH.

MATH 4488. Mathematic Problems. 1-4 Credit Hours.
Special problems in mathematics. Not covered by any course in the curriculum. Work may be either theory or laboratory. May be repeated with permission of department chair for additional credit when fewer than four credits have been earned. Prerequisite(s): Permission of department chair.

MATH 5090. Comprehensive Examination. 0 Credit Hours.
Non-thesis students should register for the comprehensive examination during their final semester of graduate coursework, or upon permission of advisor. All comprehensive examinations will be written, but an oral component may also be required. A maximum of three attempts will be allowed. Thesis student do not take this examination.

MATH 5198. Thesis. 1-6 Credit 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.

MATH 5301. Nonparametric Statistics. 3 Credit Hours.
Introduction to nonparametric statistics. Topics will include hypothesis testing, contingency tables, rank tests, and goodness-of-fit tests. Prerequisite(s): MATH 3300 or MATH 3311 or MATH 3450 or MATH 5305.

MATH 5305. Probability & Statistics. 3 Credit Hours.
Topics will be selected from: distributions and stochastic processes, parametric and nonparametric statistics, and time series analysis. Prerequisite(s): MATH 3311.

MATH 5308. Abstract Algebra. 3 Credit Hours.
Topics will be selected from: groups, homomorphism, isomorphism, direct products and sums, invariant properties, rings, and fields. Prerequisite(s): MATH 4332.

MATH 5311. Operations Research. 3 Credit Hours.
This course examines the theoretical support and applications of the simplex algorithm for linear programming and for dynamic programming. Transportation and scheduling problems are among the applications to be emphasized. Prerequisite(s): MATH 3332.

MATH 5312. Design of Experiments. 3 Credit Hours.
Students will learn about planning and conducting an experiment. Data analysis using appropriate software is covered. Prerequisite(s): MATH 5305 or permission of department chair.
MATH 5315. Operations Research II. 3 Credit Hours.
Selected topics in Operations Research, chosen from among the following: Search, Selection and Optimization Techniques; System Modeling; Network Analysis; Inventory and Production Modeling; Sequencing and Scheduling; Decision Theory; Queuing Theory; Simulation and Monte Carlo Techniques; and Markov Chains.

MATH 5320. Real Analysis. 3 Credit Hours.
Topics will be chosen from: sets and operators; cardinal numbers and ordinal types; metric spaces and Lebesgue measure; metric properties of sets; differentiation and integration. Prerequisite(s): MATH 4309.

MATH 5330. Mathematical Modeling. 3 Credit 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. Prerequisite(s): MATH 3306 and MATH 3332.

MATH 5335. Statistics II. 3 Credit Hours.
This is an advanced course in probability distributions, joining distributions, covariance and problems related to the actuary field. Prerequisite(s): MATH 5305.

MATH 5350. Applied Linear Algebra. 3 Credit 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(s): MATH 3332.

MATH 5360. Numerical Analysis. 3 Credit Hours.
An advanced study of numerical analysis. Topics will be selected from linear systems, approximation theory, numerical differential and integral equations, integration theory. Prerequisite(s): MATH 4309 and MATH 3360 or 6 hours of COSC.

MATH 5375. Statistical Reasoning and Probability. 3 Credit Hours.
Topics in applied statistics including ANOVA, experimental design, single and multiple linear regression, hypothesis testing of linear models, forecast errors and confidence intervals. Prerequisite(s): MATH 3311 or equivalent.

MATH 5376. Topics in Secondary Math. 3 Credit Hours.
This course applies the standards of the National Council of Teachers of Mathematics to the curriculum of secondary mathematics. It explores techniques to implement the standards through the use of manipulatives, graphing handhelds, and computer technology. Prerequisite(s): 24 hours of MATH, including MATH 2413.

MATH 5378. Technology-Aided Mathematics. 3 Credit 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(s): 24 hours of MATH, including MATH 120.

MATH 5379. Topics In Mathematics Theory. 3 Credit 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(s): Permission of department chair.

MATH 5380. Selected Topics in Mathematics. 3 Credit 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(s): Permission of department chair.

MATH 5381. Research Analysis. 1 Credit Hour.
An overview of the components of research in the main areas of mathematics. These areas will include pure mathematics and statistics, applied mathematics and statistics, and mathematics education. The course will culminate with a study of what is a proper literary review and how to submit an article for publication. Prerequisite(s): Graduate standing in the mathematics department or permission of department chair.

MATH 5389. Advanced Special Problems. 1-3 Credit Hours.
Special problems in mathematics. Work may be either theory or laboratory. May be repeated with permission of the department chair for additional credit when fewer than four credits have been earned. Prerequisite(s): Permission of department chair.

Mechanical Engineering Technology (ENGT)

ENGT 3213. Thermal Fluids Lab. 2 Credit Hours.
Thermal Fluids Lab This course introduces students to practical applications of fluid properties, fluid statics, fluid dynamics, and kinematics. Conservation of energy and momentum as well as incompressible laminar and turbulent flow are also utilized in experiments. Corequisite(s): ENGT 3312.

ENGT 3302. Manufacturing Processes. 3 Credit Hours.
Introduction to metal and non-metallic manufacturing processes including casting, forging, rolling, extrusion, sheet metal forming, cutting tools turning and milling operations, abrasive machining, welding and joining powder compaction, molding, forming of plastics, and surface treatments. Prerequisite(s): ENGT 3415 (Co-requisite), CTC ENGR 2302 or equivalent.

ENGT 3305. Computer Aided Problem Solving. 3 Credit Hours.
This course introduces concepts for solving problems numerically using computers. Students will learn to solve engineering problems using spreadsheet methods, mathematical programs, and basic programming. Prerequisite(s): CTC MATH 2314 or equivalent.

ENGT 3306. Engineering Ethics. 3 Credit Hours.
This course discusses the ethical considerations and value judgments related to the design, manufacturing, and management of mechanical systems and engineering technology decisions. Students will focus on engineering codes of ethics, safety, and environmental responsibility.

ENGT 3310. Applied Thermodynamics. 3 Credit Hours.
This course introduces the theory and application of the laws of thermodynamics in engineering technology. Application of theory will focus on heat engines, heat pumps, refrigeration cycles, and power cycles commonly used in mechanical systems. Prerequisite(s): CTC CHEM 1411 or equivalent; CTC PHYS 2425 or equivalent.
ENGT 3311. Fluid Mechanics. 3 Credit Hours.
An introduction to fluid properties, fluid statics and dynamics; conservation of energy and momentum; and incompressible, laminar, viscous, and turbulent flow. Students will learn various problem solving techniques including similarity and dimensional analysis. Prerequisite(s): CTC ENGR 2302 or equivalent.

ENGT 3312. Heat Transfer. 3 Credit Hours.
The theory and application of heat transfer in engineering applications will be studied. Topics include steady and unsteady conduction in one- and two-dimensions, forced convection, internal and external flows, heat exchangers, radiation, and elements of thermal system design. Prerequisite(s): ENGT 3310, ENGT 3311. Corequisite: ENGT 3213.

ENGT 3320. Quality Control Technology. 3 Credit Hours.
Quality Control This course covers the statistical analysis of data to establish quality control systems for manufacturing facilities. Prerequisite(s): ENGT 3302.

ENGT 3415. Material Science. 4 Credit Hours.
Study of the structure and properties of metallic and nonmetallic materials. This course covers material microstructure; phase diagrams; thermal, optical, electrical properties; testing and failure analysis; and corrosion. Prerequisite(s): CTC ENGR 2332 or equivalent.

ENGT 4307. Engineering Economics. 3 Credit Hours.
This course emphasizes the systematic evaluation of the costs and benefits associated with proposed technical projects. The student will be exposed to the concepts of the time value of money and the methods of discounted cash flow. Students are prepared to make decisions regarding money as capital within a technological or engineering environment. Prerequisite(s): ENGT 3306.

ENGT 4325. Senior Design A. 3 Credit Hours.
Students will complete a design process starting with topic research through conceptualization and generation of final design and documents. The design process begun in this course will be further developed and implemented in Senior Design B. Prerequisite(s): Senior classification.

ENGT 4326. Senior Design B. 3 Credit Hours.
This course is the final formulation, construction, and fabrication of a senior design project started in Senior Design A. Students will analyze results as well as prepare and submit design documents including a project report. Prerequisite(s): ENGT 4325.

ENGT 4421. Solid Modeling. 4 Credit Hours.
A study of the development and application of solid models of components and assemblies. The course covers the use of solid models in problems related to component design, stress analysis, fluid flow, heat transfer, machine dynamics, and assembly interference. Students will produce engineering drawings, visual representations, and data files for machining and rapid prototyping. Prerequisite(s): ENGT 4302.

ENGT 4422. Electrical Power and Controls. 4 Credit Hours.
Fundamentals of electrical and electronic power, controls, and instrumentation for Mechanical Engineering Technology students. This course covers the electric machines and control, Sensors and actuators, interfacing to PLC and PC, Feedback control theory and implementation, and automated data collection. Prerequisite(s): CTC MATH 2415 or equivalent.

Military Science (MILS)

MILS 3301. Training Mgmt & Warfight Funct. 3 Credit 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.

MILS 3302. Leadership in Small Unit Ops. 3 Credit 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.

MILS 4301. The Army Officer. 3 Credit 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.

MILS 4302. Company Grade Leadership. 3 Credit Hours.
The final semester course of the M S IV year 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 groom senior cadets to become Army Officers.

MILS 4305. Intro to Cross Cultural Learn. 3 Credit Hours.
The course enables students to contribute to a local society beyond the University setting. This course is a series of cultural immersion trips sponsored by the US Army Cadet Command over a 29 day period, usually during the summer semester. Prerequisite(s): ROTC cadets accepted into the ROTC program, MILS 3301 and MILS 3302.

MILS 4389. Special Topics. 1-6 Credit 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 standing. Prerequisite(s): Permission of department chair.

Music Education (MUED)

MUED 3343. Technology Application Music. 3 Credit Hours.
Microcomputers in generation and control of electronic music. Study of one or more commonly available microcomputer programs for MIDI application. Includes technology for music teachers. Prerequisite(s): Admission to teacher education program.
MUED 4326. Elementary Music Experience. 3 Credit Hours.
This course is designed to facilitate the development of skills, techniques, understandings, and professional dispositions which are necessary for elementary music educators. This course is designed to prepare prospective elementary music educators, public school or secular group, in both musical and non-musical aspects of being a music educator. Prerequisite(s): admission to teacher education program.

MUED 4327. Instrumental Music Methods. 3 Credit Hours.
This course is designed to facilitate the development of skills, techniques, understandings, and professional disposition which are necessary for instrumental music educators with a band (wind and percussion) emphasis. This course is designed to prepare prospective instrumental music educators, public school or secular group, in both musical and non-musical aspects of being a music educator. Prerequisite(s): admission to teacher education program.

MUED 4328. Orchestra Music Methods. 3 Credit Hours.
This course is designed to facilitate the development of skills, techniques, understandings, and professional dispositions which are necessary for orchestra and guitar music educators. This course is designed to prepare prospective instrumental music educators, public school or secular group, in both musical and non-musical aspects of being a music educator. Prerequisite(s): admission to teacher education program.

MUED 4329. Secondary Choral Methods. 3 Credit Hours.
A study of choral repertoire since the middle ages, with an emphasis on programming and teaching choral music to others. Prerequisite(s): admission to teacher education program.

Music (MUSI)

MUSI 3129. Intermediate & Advanced Band Repertoire. 1 Credit Hour.
This course focuses increasing knowledge and awareness of the importance of selecting appropriate concert band literature for the contest and concert stage. In addition there will be an emphasis on improving the skills needed to plan, conduct and rehearse instrumental ensembles of a variety of levels.

MUSI 3130. Intermediate & Advanced Orchestra Repertoire. 1 Credit Hour.
This course focuses increasing knowledge and awareness of the importance of selecting appropriate concert orchestra literature for the contest and concert stage. In addition there will be an emphasis on improving the skills needed to plan, conduct and rehearse instrumental ensembles of a variety of levels.

MUSI 3133. Woodwind Class. 1 Credit Hour.
This course is designed to facilitate the development of skills, techniques, understandings, and professional dispositions which are necessary for teaching others to play woodwind instruments.

MUSI 3134. Brass Class. 1 Credit Hour.
This course focuses on the basics of musical performance with special attention to rhythm, tone quality, range, musical phrasing, intonation and style, from different stylistic periods, in a variety of key signatures and meter signatures.

MUSI 3135. Vocal Class (Instrumental Majors). 1 Credit Hour.
This course serves an introduction to singing for instrumentalists who need a pedagogical knowledge for future work with singers or choirs. Instruction will include work on anatomy of the voice, breathing, posture, resonance, diction, repertoire and vocal health. In addition to accessing voices for choral and/or private lesson for singing students.

MUSI 3137. Percussion. 1 Credit Hour.
This course is designed to facilitate the development of skills, techniques, understandings, and professional dispositions which are necessary for choral leadership. This course is designed to prepare prospective choral leaders, public school or secular group, in both musical and non-musical aspects of being a choral teacher.

MUSI 3138. String Class. 1 Credit Hour.
This course is designed to facilitate the development of skills, techniques, understandings, and professional dispositions which are necessary for teaching others to play stringed instruments.

MUSI 3161. Diction for Singers. 1 Credit Hour.
This class will study the proper pronunciations for lyrics of English, Italian, German, and French musical literature. The student is expected to effectively apply these guidelines in their own speech and singing.

MUSI 3162. Opera Workshop. 1 Credit Hour.
This focuses on the organization and staging of standard operas and operettas. May be repeated. Fall (opera), spring (musical).

MUSI 3259. Choral Repertoire. 2 Credit Hours.
This course focuses on the analysis of tonality, harmony and form in European music of the 18th and 19th centuries. Includes aural recognition of forms.

MUSI 3263. Form & Analysis. 2 Credit Hours.
Analysis of tonality, harmony and form in European music of the 18th and 19th centuries. Includes aural recognition of forms. Prerequisite(s): MUSI 2115, MUSI 2117 and MUSI 2312.

MUSI 3264. Orchestration. 2 Credit Hours.
This course covers the fundamentals of instrumentation and arranging music for instruments and vocalists in a variety of musical performance settings.

MUSI 3313. Music Appreciation. 3 Credit 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 3324. Popular Music in America. 3 Credit Hours.
An introductory study of popular music in the U.S., emphasizing development and application of analytic skills oriented toward the popular arts. Concert attendance and listening requirements.

MUSI 3343. Computer Assisted Electronic Music. 3 Credit Hours.
This course focuses on the use of microcomputers in generation and control of electronic music. Study of one or more commonly available microcomputer programs for MIDI application. Includes technology for music teachers.

MUSI 4095. Senior Recital. 0 Credit Hours.
Senior Recital is a course in which the student prepares for and performs in their senior recital.

MUSI 4098. Senior Recital. 0 Credit Hours.
Senior Recital is a course in which the student prepares for and performs in their senior recital.

MUSI 4105. Beginning Conducting. 1 Credit Hour.
This class is an introduction to basic conducting skills with an emphasis on the art and study of conducting, baton technique, left hand technique, non-verbal communication, leadership, conducting terminology, transpositions and score reading.
MUSI 4207. Advanced Conducting. 2 Credit Hours.
This class is focused on advanced conducting skills.

MUSI 4312. Vocal Pedagogy. 3 Credit Hours.
This course focuses on the physical aspects of the vocal mechanism, anatomy, breathing, resonance, phonation, articulation and various techniques used in identifying vocal problems and pedagogical issues for a singer as a choral director and voice teacher.

MUSI 4326. Elementary Music Methods. 3 Credit Hours.
This course is designed to facilitate the development of skills, techniques, understandings, and professional dispositions which are necessary for elementary music educators. This course is designed to prepare prospective elementary music educators, public school or secular group, in both musical and non-musical aspects of being a music educator.

MUSI 4327. Instrumental & Marching Methods. 3 Credit Hours.
This course focuses on teaching and procedural methods required to produce a quality marching band and instrumental program.

MUSI 4328. Sec Orchestra & Guitar Methods. 3 Credit Hours.
This course focuses on teaching and procedural methods required to produce a quality orchestra program.

MUSI 4388. Problems. 1-6 Credit Hours.
A directed study of selected problems in music.

MUSI 4398. Senior Recital. 0 Credit Hours.
Senior Recital is a course in which the student prepares for and performs in their senior recital.

Music - Applied (MUAP)

MUAP 3269. Private Lesson Instruction V. 2 Credit Hours.
This course is designed to provide individualized instruction in solo technique and repertoire for the musical performer. Prerequisite: 4 semesters of private instruction.

MUAP 3270. Private Lesson Instruction VI. 2 Credit Hours.
This course is designed to provide individualized instruction in solo technique and repertoire for the musical performer. Prerequisite: 5 semesters of private instruction.

MUAP 4269. Private Lesson Instruction VII. 2 Credit Hours.
This course is designed to provide individualized instruction in solo technique and repertoire for the musical performer. Prerequisite: 6 hours of private instruction.

MUAP 4270. Private Lesson Instruction VIII. 2 Credit Hours.
This course is designed to provide individualized instruction in solo technique and repertoire for the musical performer. Prerequisite: 7 semesters of private instruction; Corequisite: MUSI 4098 (Senior Recital) required.

Music Ensemble (MUEN)

MUEN 3121. Symphonic Band. 1 Credit Hour.
Rehearsal and performance of quality concert band literature from a variety of styles. Open to any student by audition only.

MUEN 3123. Orchestra. 1 Credit Hour.
Rehearsal and performance of quality orchestral literature from a variety of styles. Open to any student by audition only.

MUEN 3124. Jazz Ensemble. 1 Credit Hour.
Rehearsal and performance of quality jazz ensemble literature from a variety of styles. Open to any student by audition only.

MUEN 3142. Chorale. 1 Credit Hour.
Designed to give participants a challenging, stylized choral experience. Performs a wide variety of literature, emphasizing the more difficult choral works. Open to any student by audition.

Nursing (NURS)

NURS 3300. Professional Role Transitions. 3 Credit Hours.
(WI) Nursing is defined, especially as it relates to promotion and restoration of health. Roles of the nurse are explored, Professional nursing is examined from historical and contemporary perspectives, including the philosophy and theoretical foundations that define professional nursing practice. Students will examine personal, professional and cultural values as influences upon nursing practice. The process of critical thinking and the use of nursing informatics is examined from multiple perspectives. Prerequisite(s): ENGL 1302 or 2311 and admission into the nursing program.

NURS 3304. Nursing Research. 3 Credit Hours.
(WI) This course is a study of basic research methodologies and an examination of the professional nurse's role in evidence-based practice. Students employ high level critical thinking and informatics skills to explore, identify, and critically appraise the credibility of Internet sources and library electronic databases to gather relevant evidence across professions that answer questions about nursing practice. Through this examination, students increase their awareness of the impact of culture and ethics on the research process and evidence-based practice. Prerequisite(s): MATH 1342 Elementary Statistics. Pre or Co-requisite NURS 3300.

NURS 3307. Health Assessment. 3 Credit Hours.
In this course, the concepts and principles underlying the assessment of the health status of culturally diverse individuals are presented. Emphasis is placed on reviewing and renewing cognitive, affective, and psychomotor skills to obtain health histories and discover physical and psychosocial findings in the well person. Emphasis is placed on health assessment as a systematic and organized examination that will provide accurate data to form valid nursing diagnoses and plans of care. Practicum experiences allow students to enhance comprehensive health assessment and analysis skills. Prerequisite(s) or Corequisite(s): NURS 3300.

NURS 3317. Pathophysiology for the Registered Nurse. 3 Credit Hours.
The focus of this course is to understand the pathophysiological basis for disease processes in adults and children. Central concepts will address symptoms, treatment, and prognosis. The major direction of this course will be on clinical application of findings that underlie pathogenesis and provide a basis for evidence-based practice. The course is specifically designed to meet the needs of nursing students. Prerequisite(s) or Corequisite(s): NURS 3300.

NURS 3330. Nursing Care of Older Adults. 3 Credit Hours.
In this course the aging process will be examined with a focus on risk reduction and disease prevention in the older adult. The concept of healthy aging will be explored. Strategies for health promotion, restoration, and maintenance of the older adult will be examined. Expected professional nurse competencies in providing and directing culturally sensitive care of the older adult across the wellness/illness continuum will be emphasized. Prerequisite(s): NURS 3307.
**NURS 4212. Professional Issues for the Registered Nurse. 2 Credit Hours.**
This course provides opportunities for analysis of elements that reflect the progressive development of the role of the professional nurse. It formalizes a framework that integrates the issues of political action, socio-legal concerns, multiculturalism, and ethical models into nursing practice through the debate process. Prerequisite(s): NURS 3300 and GOVT 2305 and GOVT 2306.

**NURS 4220. Professional Topics in Nursing. 2 Credit Hours.**
This course is designed to promote nationally recognized nursing specialty certification exam. After developing a plan of study approved by the nursing program director, the student will conduct an independent study in the field of nursing specialty certification under the direction of a faculty member. Evidence of exam completion will be required for credit to be awarded. Specialty certification must be in an area recognized by a national certifying body such as the the National Commission for Certifying Agencies and the Accreditation Board for Specialty Nursing Certification. Prerequisite(s): NURS 3300.

**NURS 4405. Care of Individuals and Families. 4 Credit Hours.**
This course emphasizes the importance of the professional nurse's engagement in ethical and evidence-based practice. Students examine nursing care management concepts as they apply critical thinking skills to integrate the concepts of pathophysiology, pharmacology, psychosocial behavior, and cultural competence to coordinate quality and safe care in a variety of settings. Students experience the nurse educator role as they employ teaching and learning principles and nursing informatics to initiate interventions with individuals and families that highlight health promotion activities. Practicum experiences are individualized. Prerequisite(s): NURS 3300 and SOCI 1301.

**NURS 4410. Leadership and Management for the Registered Nurse. 4 Credit Hours.**
In this course, theories and principles of human behavior in organizations are examined, including an exploration of leadership roles in professional nursing practice. Students analyze concepts that reflect the progressive development of the nurse leader who applies critical thinking and information technology skills to evidence-based practice. The role of the nurse leader as an inter-professional team member is also examined. The importance of the nurse leader as a role model for continued professional growth through lifelong learning is emphasized. Issues related to political action, socio-legal concerns, cultural diversity, and ethics in professional nursing practice are explored with an emphasis on the advocacy role of the nurse. Prerequisite(s): NURS 3300, NURS 3304.

**NURS 4506. Community Health. 5 Credit Hours.**
In this course, students are introduced to public/community health nursing practice and the role of systems in the care of culturally diverse populations. The role of the professional nurse as part of an inter-professional team in health promotion, disease prevention, and management of chronic health problems in community settings is explored. Students apply critical thinking and information technology skills to develop and implement evidence-based projects that positively impact the quality of life of identified populations. Practicum experiences are individualized. Prerequisite(s): NURS 3300, NURS 3304.

**Physics (PHYS)**

**PHYS 3331. Mechanics. 3 Credit Hours.**
Particle dynamics in one, two, and three dimensions; conservation laws; dynamics of a system of particles; motion of rigid bodies; central force problems. Prerequisite(s): MATH 3306 and MATH 3433; or concurrent registration.

**PHYS 3332. Electromagnetic Field Theory. 3 Credit Hours.**
Electrostatics; Laplace's equation; the theory of dielectrics; magnetostatic fields; electromagnetic induction; magnetic fields of currents; Maxwell's equations. Prerequisite(s): PHYS 2426 and MATH 3306 or concurrent registration; MATH 3433 or concurrent registration.

**PHYS 3333. Thermodynamics. 3 Credit Hours.**
Concept of temperature, equations of state; the first and the second law of thermodynamics; entropy; change of phase; the thermodynamics functions. Prerequisite(s): PHYS 2426; MATH 3433 or concurrent registration.

**PHYS 3334. Modern Physics. 3 Credit 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(s): PHYS 2426 and MATH 3433, or MATH 3306 or concurrent registration.

**PHYS 3350. Medical Physics I. 3 Credit 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(s): PHYS 2426 or consent of the instructor.

**PHYS 4170. Undergraduate Research Project. 1-2 Credit Hours.**
Methods of research in physics or in physics 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 2 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 2 credit hours. Prerequisite(s): junior standing and 14 semester hours of PHYS.

**PHYS 4330. Mathematical Methods of Phys. 3 Credit 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. Prerequisite(s): MATH 3306 and MATH 3433.

**PHYS 4335. Quantum Physics. 3 Credit Hours.**
The Schrodinger equation; one dimensional systems; the Heisenberg uncertainty principle; magnetic moments and angular momentum; two and three dimensional systems; approximation methods; scattering theory. Prerequisite(s): PHYS 3334 and MATH 3306.

**Political Science (POLI)**

**POLI 3300. Critical Thinking About Politics. 3 Credit Hours.**
Introduces students to political science research tools and the application of critical thinking techniques to politics and political science. Topics include finding reliable sources, critically evaluating sources, identifying political agendas and propaganda, using and critiquing polls, and examining the social-scientific approach to political science. Offered in Fall semesters.

**POLI 3301. Political Economy of Globalization. 3 Credit Hours.**
Examine the demographic, technological, and economic forces that have come together to shape a more culturally, economically, and politically integrated world, and the hard political and economic choices that must be made in competitive environments.
POLI 3302. Elections and Political Parties. 3 Credit Hours.
Study electoral process in American national, state, and local political systems. Special emphasis on the evolution of the structure and functions of political parties, and other participants in the electoral process.

POLI 3303. Comparative State and Local Government. 3 Credit Hours.
Explore variations and similarities in the practice of politics and in the administration of government in the states. Special emphasis on local government and state-national relations. Prerequisite(s): GOVT 2305, GOVT 2306.

POLI 3304. The Executive Branch. 3 Credit Hours.
Examine the organization of executive power in the United States national, state, and local government systems. Evolution of the structure and functions of the Presidency, national, state and local bureaucracies, the role of parties, legislatures, courts, and interest groups are analyzed as participants in the executive process. Prerequisite(s): GOVT 2305.

POLI 3305. Legislation. 3 Credit Hours.
Examine the legislative process in American national, state, and local political systems. Analyze 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(s): GOVT 2305.

POLI 3306. Political Economy. 3 Credit Hours.
Explore the historical, philosophical, and theoretical relationships between the state and the economy. Prerequisite(s): None.

POLI 3307. Public Administration. 3 Credit Hours.
Examine the concepts and practices of American public administration. Prerequisite(s): GOVT 2305.

POLI 3308. International Politics. 3 Credit Hours.
Explore the development of the national state system, the problems and issues which have arisen, international agencies created to cope with these problems, and the principles of international conduct.

POLI 3310. Environmental Politics. 3 Credit Hours.
Explore the politics of environmental protection in America. Special emphasis on domestic environmental policy and the affects of federalism in shaping and implementing environmental policies. Prerequisite(s): GOVT 2305.

POLI 3320. Terrorism and Political Violence. 3 Credit Hours.
Examine the causes of terrorism and other forms of political violence, with special emphasis on measures of prevention and counter-terrorism.

POLI 3330. Understanding Social Science Research. 3 Credit Hours.
Explore the practice of political science research, with emphasis on hypothesis testing, measurement, formal modeling, and statistical analysis. Statistical concepts covered include central tendencies and statistical distributions, regression, and maximum likelihood estimation.

POLI 3350. Politics and Propaganda in Film. 3 Credit Hours.
This course explores the political uses of film, with a particular focus on the uses of the documentary style to influence public opinion. Topics covered include government-sponsored and privately-produced propaganda, the role of film in broader propaganda or political campaigns, and the ethical uses of film in the context of politics.

POLI 3355. Religion and Politics. 3 Credit Hours.
Explore the historic development of church-state relations in the United States, the evolution of church-state constitutional law, and the impact of this history and law on the current political environment. Special emphasis on the role played by religion in political campaigns, local politics, and interest group activities.

POLI 4302. Constitutional Law II. 3 Credit Hours.
Examine the origin and development of constitutional prohibitions as shown by leading US Supreme Court decisions on civil rights, contracts, due process, economic regulation, eminent domain, labor relations, obscenity, political utterance, and religion. Prerequisite(s): GOVT 2305.

POLI 4303. Political Theory through 1789. 3 Credit Hours.
Philosophical ideas concerning basic political problems from the Greeks to 1789. Prerequisite(s): GOVT 2305, GOVT 2306.

POLI 4304. Political Theory Since 1789. 3 Credit Hours.
Philosophical ideas concerning basic political problems since 1789. Prerequisite(s): GOVT 2305, GOVT 2306.

POLI 4305. Comparative Government and Politics. 3 Credit Hours.
Examine the relationship of government and politics of the major world powers, including topics from Asia, Africa, Europe, and the Americas.

POLI 4310. Environmental Policy. 3 Credit Hours.
Explore the causes of peace, covering bargaining and war termination, social conflict resolution, international cooperation, and the ethics of peace.

POLI 4315. Foreign Policy. 3 Credit Hours.
Study America's role in the modern world. Particular emphasis is placed on the policy makers, and on external and internal factors which affect decision making.

POLI 4316. Conflict Studies. 3 Credit Hours.
Study the causes of international and civil conflict, historical changes in the nature of war, and predictions of future conflicts.

POLI 4317. Peace Studies. 3 Credit Hours.
Explore the causes of peace, covering bargaining and war termination, social conflict resolution, international cooperation, and the ethics of peace.

POLI 4320. Weapons of Mass Destruction. 3 Credit Hours.
Study the causes, characteristics, and effects of civil wars, with particular emphasis on preventing the resumption of war after peace agreements, and the effect of military intervention on the outcome and recurrence of civil war.

POLI 4330. Understanding Social Science Research. 3 Credit Hours.
Develop skills in political science research, with emphasis on hypothesis testing, measurement, formal modeling, and statistical analysis. Statistical concepts covered include central tendencies and statistical distributions, regression, and maximum likelihood estimation.

POLI 4350. Government Seminar. 3 Credit Hours.
Explore topics in government with independent reading, research, discussion, and writing, under personal direction of instructor. May be taken more than once for credit. Prerequisite(s): Senior standing, 18 hours of POLI, or permission of Program Coordinator.
POLI 4365. Politics of Literature. 3 Credit Hours.
Examine the politics of fiction through a single author or genre to critically evaluate its role in political persuasion, especially normative political theory. Attention is paid to the political uses of genre conventions and the political power of shared myths. POLI 4365 may be repeated once for credit when the author/genre covered differs.

POLI 4380. Administration of Justice. 3 Credit Hours.
Analyze the structure, function, and interrelationship of the components of the criminal justice system at the federal, state, and local levels, including the history and philosophy of criminal justice in a democratic society.

POLI 4384. Political Science Internship. 3,6 Credit Hours.
Apply and integrate academic study with professional experience in Political Science. 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 160 hours of work required for 3 hours of credit. Prerequisite(s): 2.5 overall grade point average, senior standing, and permission of Program Coordinator. Field experience fee $75.

POLI 4388. Political Science Problems. 1-3 Credit Hours.
Explore problems in Political Science with independent reading, research and discussion. Entry into this course will be arranged with the political science advisor and instructor.

POLI 4395. Political Science Capstone. 3 Credit Hours.
(WI) Integrate and use fundamental concepts learned in previous political science courses to research and analyze real-world political phenomena and problems. Students present oral and written reports on their research, supplemented by appropriate internet and multimedia materials, as well as portfolios documenting their research.

POLI 5090. Political Science Comprehensive Examination. 0 Credit Hours.
Non-thesis students should register for the comprehensive examination during their final semester of graduate coursework, or upon permission of advisor. All comprehensive examinations will be written, but an oral component may also be required. A maximum of three attempts will be allowed. Thesis students do not take this examination.

POLI 5300. Political Science Research Methods. 3 Credit Hours.
Learn the elements of research design and statistical analysis. Topics covered include hypothesis-testing, reliability and validity, measures of association, linear regression, and maximum likelihood estimation.

POLI 5301. Political Decision-Making. 3 Credit Hours.
Learn formal models of political decision-making, including game theory, spatial voting models, decision theory, and collective social choice.

POLI 5302. Constitutional Law. 3 Credit Hours.
Predict the resolution of constitutional controversies by examining theories of constitutional interpretation and judicial decision-making in the United States.

POLI 5303. Origins of Conservative Political Thought. 3 Credit Hours.
This course covers the philosophical origins of conservative political thought, focusing on its traditional, statist, and libertarian variants.

POLI 5304. Political Liberalism and its Critics. 3 Credit Hours.
Explore the philosophical assumptions and implications of liberalism, and examine its internal consistency and the extent to which it withstands challenges from competing systems of political thought.

POLI 5305. American Politics. 3 Credit Hours.
Examine basic approaches to the study of American Politics, including major works and recent research on this topic.

POLI 5306. Comparative Politics. 3 Credit Hours.
Examine basic approaches, major works, and recent research on the study of comparative politics and government.

POLI 5307. International Relations. 3 Credit Hours.
Examine basic approaches to the study of the politics of international relations, including major works and recent research on the topic.

POLI 5315. Foreign Policy. 3 Credit Hours.
Learn foreign policy decision-making. Understand how decisions are made, their consequences, and their ethical implications, with special emphasis on the foreign policy decisions of the United States.

POLI 5316. Conflict Studies. 3 Credit Hours.
Study the causes of international and civil conflict, historical changes in the nature of war, and predictions of future armed conflicts.

POLI 5317. Peace Studies. 3 Credit Hours.
Study the causes of peace, covering bargaining and war termination, social conflict resolution, international cooperation, and the ethics of peace.

POLI 5318. Terrorism Studies. 3 Credit Hours.
Study the causes of terrorism and other forms of political violence, with particular emphasis on measures of prevention and counter-terrorism.

POLI 5321. Civil Wars. 3 Credit Hours.
Examine the onset, evolution, and termination of civil wars. Particular emphasis is given to the role that outside actors play in civil wars, including foreign military intervention.

POLI 5330. Theories of Public Management. 3 Credit Hours.
Apply theories of public administration, and study the problems of administrative management in public organizations, and the use of law for administrative decision-making.

POLI 5348. Political Science Internship. 3,6 Credit Hours.
Apply and integrate academic study with professional experience in Political Science. 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 160 hours of work required for 3 hours of credit. Prerequisite(s): 2.5 overall grade point average, senior standing, and permission of Program Coordinator. Field experience fee $75.

POLI 5350. Political Forecasting. 3 Credit Hours.
Research and analyze real-world political phenomena and problems. Learn and use different approaches to political forecasting, with a focus on formal models of politics.

POLI 5352. General Wars in World History. 3 Credit Hours.
Assess theories of war between major powers. Attention is given to structural, economic, and military factors that contribute to world wars, as well as the prospects for a Third World War.

POLI 5355. International Relations of the Middle East. 3 Credit Hours.
Examine the international politics of the Middle East, with particular emphasis on Israel and its regional rivals.

POLI 5360. Political Culture and Public Policy. 3 Credit Hours.
Study the political culture as it forms and is formed by public policy, including the culture of environmental policy, bureaucratic policy, and foreign policy.

POLI 5361. Politics of Education. 3 Credit Hours.
Study the relationship between politics and education in America, including both K-12 and post-secondary systems.

POLI 5362. Environmental Policy. 3 Credit Hours.
Study the politics of the natural environment with emphasis on the role of government in environmental protection.

POLI 5365. Politics of Literature. 3 Credit Hours.
This graduate seminar examines the politics of literature through a single author or genre as a method of introducing and critically evaluating normative political theory. Special attention is paid to the political uses of genre conventions and the political power of shared myths. POLI 5365 may be repeated once for credit when the author/genre covered differs.
POLI 5388. Problems. 1-3 Credit Hours.
Explore selected topics in Political Science. Independent reading, research, discussion, under supervision of senior professor.

POLI 5391. Political Science Practicum. 3 Credit Hours.
Gain professional experience in school administration, counseling, supervision, college or public school teaching, or other public service professions. May be repeated once for credit. Field experience fee: $75.

POLI 5398. Political Science Thesis. 3 Credit Hours.
Scheduled when student is ready to begin thesis. No credit until thesis is accepted.

Public Administration (PADM)

PADM 5301. Introduction to Managing Public Sector Organizations. 3 Credit Hours.
Learn the key dynamics in managing public sector organizations. Study the classic readings in the history of public administration in the United States, providing context for the current practice of public management. Particular emphasis will be on the distinctive aspects of public sector organizations and managerial strategies to promote organizational effectiveness and change in these complex environments.

Psychology (PSYC)

PSYC 3301. Psychology of Learning. 3 Credit Hours.
Investigate major theoretical approaches, concepts and principles, and experimental methods of learning. Prerequisite(s): PSYC 2301 or permission of department chair.

PSYC 3302. Health Psychology. 3 Credit Hours.
Apply psychology principles and techniques to the fields of health and medicine, including emotional, behavioral, cognitive, social, and multidisciplinary factors. Examine the effects of illness and injury on behavior. Prerequisite(s): PSYC 2301.

PSYC 3303. Educational Psychology. 3 Credit Hours.
Apply psychological theories and principles to teaching and learning. Learn theories of human development, learning, and motivation, and how these impact the processes of teaching and learning. Analyze the impact of cultural diversity on the learning process and standardized testing. Students seeking teacher certification must be admitted to the Teacher Education Program. Prerequisite(s): PSYC 2301 or permission of department chair.

PSYC 3305. Human Cognitive Processes. 3 Credit Hours.
Study human cognition and information processing, including perception, attention, memory, reasoning, and problem solving. Explore experimental methods and current theories of human cognition. Prerequisite(s): PSYC 2301 or permission of department chair.

PSYC 3307. Human Lifespan. 3 Credit Hours.
Explore development from conception through adulthood with emphasis on social adaptation of individuals and roles in families, groups, and communities. Study cognitive, social, personal and biological factors of the stages of development.

PSYC 3309. Writing in Psychology. 3 Credit Hours.
(WI) Examine advanced technical communication in psychology. Study and use the current edition of the Publication Manual of the American Psychological Association for formal research reports, literature reviews, grant proposals, and professional articles. Learn to write professional psychological reports. Prerequisite(s): PSYC 2301, ENGL 1301, and ENGL 1302, or permission of Departmental Chair.

PSYC 3310. Abnormal Psychology. 3 Credit Hours.
Study an overview of the history, causes, and treatments of deviant behavior. Learn psychological, social, and physiological factors as they relate to the development of abnormal behavior and its subsequent treatment. Prerequisite(s): PSYC 2301 and PSYC 3309 or permission of Departmental Chair.

PSYC 3311. Behavior Analysis and Behavior Management. 3 Credit Hours.
Examine the basic principles and methods of behavior analysis and behavior management techniques. Study 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(s): PSYC 2301 or permission of department chair.

PSYC 3312. Biological Foundations of Behavior. 3 Credit Hours.
Study biological basis of behavior. Learn in-depth examination of physical structure of the human body and the role of chemical and electrical operations within it. Emphasis will be placed on the developmental, cognitive, affective, and behavioral effects of such operations, and recent research will be reviewed. Prerequisite(s): PSYC 2301, 6 hours of BIOL lab science, and PSYC 3309 or permission of department chair.

PSYC 3315. Human Sexuality. 3 Credit Hours.
Study psychology of sexual behavior, exploring the field’s diversity, controversy, and current research, in a non-judgmental way. Explores historical, biological, psychological, and relevant social aspects of human sexuality. Prerequisite(s): PSYC 2301.

PSYC 3318. Psychology of Gender. 3 Credit Hours.
An examination of gender from a psychological and cultural perspective. Discusses how and why social expectations, standards, and opportunities tend to be systematically related to gender and the corresponding effects on male and female experience. Prerequisite: PSYC 2301 or permission of department chair.

PSYC 3320. Psycholinguistics. 3 Credit Hours.
Analyze the study of language, understanding languages, producing language and speech, language development, and related topics such as reading, language and the brain, linguistic diversity, and universals. Prerequisite(s): PSYC 2301 and PSYC 3309 or permission of department chair.

PSYC 3330. Statistics for the Behavioral Science. 3 Credit Hours.
Study measures of central tendency, variability, and correlation. Analyze applications of statistical inference to research in Psychology, reliability and validity of psychological tests and measurement, analysis of variance, multiple analysis of variance, and regression. Prerequisite(s): PSYC 2301 and MATH 1314 or MATH 1342 or permission of department chair.

PSYC 3350. Personality. 3 Credit Hours.
Analyze personality, the unique and relatively stable patterns of behavior, thoughts, and feelings that make individual human beings. Learn the different theoretical approaches - psychodynamic, cognitive, behavioral, humanistic, and existential — as they relate to personality and personality development. Prerequisite(s): PSYC 2301 or permission of department chair.
PSYC 3360. Sport Psychology. 3 Credit Hours.
Explore theories and research related to sports and exercise behavior. Study the history of sport psychology, behavioral principles, anxiety, motivation, leadership, group dynamics, gender, and personality. Analyze related principles to exercise and sport performance. Prerequisite(s): PSYC 2301 or permission of department chair.

PSYC 3409. Writing in Psychology. 4 Credit Hours.
(WI) Examine advanced technical communication in psychology. Study and use the current edition of the Publication Manual of the American Psychological Association for formal research reports, literature reviews, grant proposals, and professional articles. Learn to write professional psychological reports. Prerequisite(s): PSYC 2301, ENGL 1301, ENGL 1302, or permission of Department Chair.

PSYC 3430. Statistics for the Behavioral Science. 4 Credit Hours.
Study measures of central tendency, variability, and correlation. Analyze applications of statistical inference to research in Psychology, reliability and validity of psychological tests and measurement, analysis of variance, multiple analysis of variance, and regression. Lab sessions will focus on use of statistical software to organize and analyze data and to the translation of raw results of statistical analyses into written APA-style Results sections. Prerequisite(s): PSYC 2301 and MATH 1314 or MATH 1342 or PSYC 2317 or permission of department chair.

PSYC 4301. Psychological Assessment. 3 Credit Hours.
Explore principles of psychological testing. Study uses and critical evaluation of tests, achievements, intelligence, aptitude, and personality. Prerequisite(s): PSYC 2301, PSYC 3309, and PSYC 3330, or permission of department chair.

PSYC 4302. Adaptive Psychology. 3 Credit 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(s): PSYC 2301, 6 hours of BIOL science with lab or permission of department chair.

PSYC 4303. Animal Behavior. 3 Credit Hours.
Study animal behavior research from a psychological perspective. Examine the development and display of behaviors will include subject samples ranging from insects to humans conducted in natural, quasi-experimental, and experimental studies. Prerequisite(s): PSYC 2301, 6 hours of BIOL science with lab, or permission of department chair.

PSYC 4305. Social Psychology. 3 Credit Hours.
Learn theory and phenomena of social psychology. Study the effect of social variables upon the behavior of individuals. Examine socialization, language and communication, prejudice, social attitudes, attitude change, aggression, prosocial behavior, and group behavior. Prerequisite(s): PSYC 2301 and PSYC 3309 or permission of department chair.

PSYC 4310. Industrial and Organizational Psychology. 3 Credit Hours.
Study 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(s): PSYC 2301 or permission of department chair.

PSYC 4315. Fundamentals of Program Evaluation. 3 Credit Hours.
Study fundamentals of program evaluation methods used in the fields of education and human service. Learn theory, methodology, utilization of information, standards of practice and ethics. Prerequisite(s): PSYC 2301, PSYC 3309, and MATH 1342 or PSYC 3330; or permission of instructor.

PSYC 4320. History of Psychology. 3 Credit Hours.
(WI) Analyze historical prescientific psychology in philosophy and physiology through the period of the psychological schools of thought. Prerequisite(s): PSYC 3307, PSYC 3309, PSYC 3330, PSYC 3312, PSYC 4305; or permission of department chair.

PSYC 4325. Motivation. 3 Credit Hours.
Learn synthesis of theories of motivation with practical applications of motivating people, such as students or business employees. Examine historical and recent developments and their relationship to behavioral research, including concepts such as goals, work quality, work environment, and the use of rewards and other incentives. Prerequisite(s): PSYC 2301.

PSYC 4332. Psychopharmacology. 3 Credit Hours.
Study neuroscientific basis of the effects of drugs on behavior. Emphasis will be placed on major antipsychotic, anxiolytic, antidepressant drugs and their clinical use and side effects and drug abuse such as alcohol, marijuana, and cocaine. Prerequisite(s): PSYC 2301 and 6 hours of BIOL lab science or permission of department chair.

PSYC 4350. Forensic Psychology. 3 Credit Hours.
Study forensic psychology and its relation to criminal justice. Emphasis is on social and cognitive psychology aspects like eyewitness testimony and courtroom behavior. Analyze psychological aspects of the legal system such as juvenile justice, competency to stand trial, and expert psychological testimony. Prerequisite(s): PSYC 2301.

PSYC 4384. Psychology Undergraduate Internship. 1-3 Credit Hours.
Explore supervised professional activities in psychology. Major emphasis is placed on the student’s involvement in successful practices in the area of interest. Students must have the approval of the Department Chair to enroll in this course.

PSYC 4388. Psychology Problems. 1-3 Credit Hours.
Study of various topics related to Psychology. Engage in independent research, reading and discussions under the personal direction of the instructor; topics may vary according to student need. Entry into the course will be arranged by the department chair.

PSYC 4389. Special Topics in Psychology. 3 Credit Hours.
Examine different topics each semester with a focus on contemporary issues in psychology. This course may be repeated for credit as the topic changes.

PSYC 4435. Principle Research for Behavioral Sciences. 4 Credit Hours.
(WI) Study various research designs used in the behavioral sciences. Laboratory experiences will be required to acquaint the student with experimental procedures. Instruction will also be provided in writing research reports according to the APA manuscript style and SPSS statistical applications. Prerequisite(s): PSYC 3309 or ENGL 3309 and PSYC 3330 or equivalent.

PSYC 5090. Psychology Comprehensive Examination. 0 Credit Hours.
Study and take the psychology examination for Non-thesis students. Register for the comprehensive examination during final semester of graduate coursework, or upon permission of advisor. All comprehensive examinations will be written, but an oral component may also be required. A maximum of three attempts will be allowed. Thesis student do not take this examination.
PSYC 5198. Psychology Thesis. 1-6 Credit Hours.
Independent research course in which a student proposes and completes an original, quantitative research project in conjunction with three graduate faculty members who serve on the thesis committee. Scheduled when the student is ready to begin thesis. No credit awarded until proposal and thesis are approved, respectively. Six hours of thesis credit is required. Prerequisite(s): PSYC 5300 and PSYC 5301 and successful completion of 12 additional credit hours in the degree plan and, permission of the Chair of the thesis committee or department chair.

PSYC 5300. Behavioral Statistics. 3 Credit Hours.
Study descriptive statistics with inferential statistics, correlation, one-way and two way analysis of variance, regression analysis and experimental design. Use computer software with emphasis on experience with SPSS.

PSYC 5301. Research Methods. 3 Credit Hours.
Study scientific method of research, types of research and research design. Review, analyze and interpret research findings in major field and develop a research project with the assistance of their instructor. Prerequisite(s): PSYC 5300 or equivalent graduate statistics course.

PSYC 5302. Social Psychological Processes. 3 Credit Hours.
Examine the individual in a social and cultural context. Learn the behavior of groups, the roles of individuals within groups, and the influence of groups on an individual's perceptions, attitudes, emotions, and behavior. Study major theories and supporting research.

PSYC 5303. Theories of Learning. 3 Credit Hours.
Study major theories of learning, factors which influence the process of learning, and application of these theories and processes to general and special populations. Prerequisite(s): Admission to Graduate School or permission of department chair.

PSYC 5304. Human Development. 3 Credit Hours.
Study the development of human beings from conception to death. Analyze research and theory into physical, cognitive, social, and personality development in each of the different age groups: prenatal, infancy, childhood, adolescence, and adulthood.

PSYC 5305. Research-Based Teaching and Learning. 3 Credit Hours.
Review up-to-date empirical research on learning and teaching in a variety of contexts. Apply concepts to the creation of an independent research proposal. Prerequisite(s): Admission to Graduate School or permission of department chair.

PSYC 5310. Special Education Law. 3 Credit Hours.
Examine the legal framework for special education in the United States. Understand federal constitutional provisions, federal and state statutes, and federal and state judicial decisions affecting special education, including the rules and regulations for the various federal and state agencies. Prerequisite(s): PSYC 5360 Foundations of School Psychology.

PSYC 5311. Culture, Minority and Gender Issues. 3 Credit Hours.
Study interaction of social/cultural groups in America, problems of minorities and ethnic groups, problems related to gender and age, problems within family systems and contemporary sources of positive change.

PSYC 5313. Crisis Intervention and Management Individual and Family. 3 Credit Hours.
Examine dynamics and treatment of situational crises in various settings. Learn theories and approaches to crisis intervention and management. Prerequisite(s): COUN 5350 or permission of department chair.

PSYC 5314. Assessment Intelligence and Achievement. 3 Credit Hours.
Study the selection, administration, and interpretation of selected tests used in the individual measurement of intelligence. Prerequisite(s): COUN 5358 and PSYC 5381, or permission of department chair. Field experience fee - $75.

PSYC 5315. Physiological Psychology. 3 Credit Hours.
Examine biological basis of behavior with an emphasis on the structure and biochemistry of the human nervous system. Explore interactive relationships between biological processes, psychopharmacology, genetics, neurological disorders, normal growth and maturation, perception, memory, emotion, stress, mental disorders, consciousness, and communication. Study of contemporary theories and research are investigated and critiqued.

PSYC 5316. Advanced Quantitative Methods and Experimental Design. 3 Credit Hours.
Learn statistical techniques to analyze quantitative data resulting from experimental research designs. Engage in a continuation of PSYC 5300 and PSYC 5301 and students are required to demonstrate proficiency in SPSS for data analysis. Review One-Way and Two-Factor ANOVA. Emphasis on ANCOVA, MANOVA, MANCOVA, multiple regression, logistic regression, data reduction techniques (factor analysis and principal components analysis), and non-parametric analyses appropriate for two- and multi-group designs. Explore the integration of multivariate and advanced statistical design with applicable research paradigms. Prerequisite(s): PSYC 5300 and PSYC 5301.

PSYC 5320. History and Systems. 3 Credit Hours.
Analyze the historical development of the science of psychology from early philosophical theories through the establishment of psychology as a science to modern theoretical positions.

PSYC 5321. Evolutionary Psychology. 3 Credit Hours.
Evaluate current theories of adaptation with a large focus on how adaptation has influenced social, cognitive and developmental processes in humans. Review and discuss evidence from cross-cultural and cross species studies.

PSYC 5322. Psychometrics. 3 Credit Hours.
Study systematic treatment of the logic of measurement, including scaling models, validity, variance and covariance, reliability, theories of measurement error an test construction. Prerequisite(s): Admission to Graduate School or permission of department chair.

PSYC 5353. Theories of Counseling. 3 Credit Hours.
Investigate personality and counseling theories with an emphasis on how theories influence practice. Special emphasis on applications to various populations, role play, other experiential methods, and related ethical concerns. Prerequisite(s): COUN 5350 or PSYC 5360 or approval of the Department Chair.

PSYC 5356. Foundations of School Psychology. 3 Credit Hours.
Study the foundations, professional standards, ethics, and laws related to the delivery of school psychological services. Prerequisite(s): admission to graduate school or permission of department chair.

PSYC 5380. Personality Social Assessment. 3 Credit Hours.
Gain instruction and supervision in the assessment of emotional, motivational, interpersonal, and attitudinal characteristics of children and adults. Learn the administration, scoring, and interpretation of many widely-used tests. Prerequisite(s): COUN 5358 and PSYC 5381, or permission of department chair.
PSYC 5381. Assessment and Evaluation Fundamentals. 3 Credit Hours.
Examine nature and development of standardized tests, with emphasis on ethical standards, psychometric theory, test standards, and test construction. Learn selection criteria and utilization of standardized or other instruments in various environments are considered. Explore evaluations and critiques of published tests and experiential exposure to different types of psychological tests. Prerequisite(s): Admission to the Graduate School.

PSYC 5382. Behavior Management and Therapy. 3 Credit Hours.
Examine basic theories of human learning, major approaches to behavior management and therapy and principles of applied behavior analysis. Learn formal treatment planning application and evaluation of programs for management of specific behavioral/psychological problems. Study case reviews and practice in individual interventions.

PSYC 5383. Consultation and Supervision. 3 Credit Hours.
Study application of psychological principles of consultation and supervision in selected settings. Emphasis is on analysis of client and consultee/.supervisor behaviors, individual and group communications, program evaluation and possible intervention options in selected environments. Prerequisite(s): COUN 5350 or PSYC 5360, and COUN 5353, or permission of department chair.

PSYC 5384. Psychology Internship I. 3 Credit Hours.
Explore supervised professional activities in psychology. Major emphasis is placed on the student's involvement in successful practices in the area of interest. Students must have met all academic and professional standards of practice before placement. Lab experiences are included. Prerequisite(s): Completion of all course work required by the degree and application for internship. Field experience fee - $75.

PSYC 5385. Psychology Internship II. 3 Credit Hours.
Explore professional activities in psychology in the student's area of interest. Major emphasis is placed on the integration of theoretical and conceptual principles, as well as professional and personal skill development. Prerequisite(s): PSYC 5383 and application for internship. Field experience fee - $75.

PSYC 5388. Psychology Problems. 1-3 Credit Hours.
Study selected problems in psychology. Engage in independent research, reading and discussions under the personal direction of the instructor, topics may vary according to student need. Prerequisite(s): graduate standing and permission of department chair.

PSYC 5389. Special Topics in Psychology. 1-3 Credit Hours.
Examine different topics each semester with a focus on contemporary issues in counseling. This course may be repeated for credit as the topic changes.

PSYC 5391. Psychology Practicum I: Field Experience. 3 Credit Hours.
Explore supervised experience in settings such as marriage and family, mental health, and/or counseling and guidance placements outside the University. The field experience will consist of 150 clock hours with 100 client contact hours. Prerequisite(s): COUN 5350, COUN 5353, COUN 5354, COUN 5357 and (COUN 5358 or COUN 5351), and PSYC 5381 for LPC and LPA; COUN 5350, COUN 5309, COUN 5353, COUN 5356 and COUN 5357 for LMFT; PSYC 5360, PSYC 5381, PSYC 5382, COUN 5353, COUN 5357 and COUN 5358 for LSSP. 3.0 GPA; and permission of department chair. Field experience fee - $75.

PSYC 5392. Psychology Practicum II: Field Experience. 3 Credit Hours.
Explore settings such as marriage and family, mental health, and/or counseling and guidance placements outside the University. The field experience will consist of 150 clock hours with 100 client contact hours. Prerequisite(s): PSYC 5391, a 3.0 GPA, and permission of department chair. Field experience fee - $75.

PSYC 5393. Psychology Practicum III: Field Experience. 3 Credit Hours.
Explore settings such as marriage and family, mental health, and/or counseling and guidance placements outside the University. The field experience will consist of 200 clock hours with 100 client contact hours. Prerequisite(s): PSYC 5392, a 3.0 GPA, and permission of department chair. Field experience fee - $75.

Reading (READ)

READ 3301. Introduction to Children's Literature. 3 Credit Hours.
Study literature for children focusing on the use of classic and contemporary texts to promote interest, motivation, and critical reading skills for self-selected reading in the elementary student. Learn to use texts to emphasize literary genre, text structures, and literary devices as tools for making connections and meaning. Prerequisite(s): Required core ENGL classes for degree. Credit will not be granted for READ 3301 and ENGL 3350.

READ 3310. Foundations of Literacy. 3 Credit Hours.
This course provides an overview of foundational concepts, principles, and best practices related to the science of teaching reading. Includes a survey of the cognitive, socio-cultural, linguistic, and motivational influences on literacy and language development. Presents the key scientifically-based reading research foundations needed to understand how reading develops from early childhood through adolescence. Prerequisite(s): Admission to teacher education block 1.

READ 3311. Literacy Development I. 3 Credit Hours.
This course addresses the theory and practice of teaching early reading. Takes into consideration theories of learning, understandings of students and their needs, and the backgrounds and interests of individual students. Study characteristics of typical and atypical reading development in the emergent/early learner, explore materials, procedures, assessments and instructional methods. Prerequisite(s): Completion of teacher education block 1 with a minimum 2.75 GPA.

READ 3320. Fundamentals of Teaching Reading. 3 Credit Hours.
(WI) This course focuses on research-based competencies essential for effective literacy instruction. Surveys characteristics of normal reading development in the elementary through middle school learner; explores materials, procedures, assessment and instructional methods considered effective in teaching oral language, writing, strategy building for comprehension, vocabulary, and word identification.

READ 3330. Reading II: Assessment, Instruction and Reader Development. 3 Credit Hours.
(WI) Study characteristics of the transitional and fluent literacy learner, methods of assessment and instruction for strategy building, comprehension, vocabulary, word identification, and TEKS/TAKS. Examine normal reading development, reading difficulties, strategies for assessing/addressing reading differences including diverse learner reading processes and development of literacy in English or ELL. Prerequisite(s): READ 3311 and Admission to the Teacher Education Program. Concurrent enrollment in EDUC 3330.
READ 3335. Content Area Reading. 3 Credit Hours.
(WI) Examine factors that influence learning from content text and study specific instructional strategies which promote comprehension, vocabulary development, effective study strategies, and test-taking skills. Study ways to modify text for diverse learners and the principles of research-based reading instruction. Must be admitted to the Teacher Ed Program.

READ 4304. Reading and Writing Across the Curriculum. 3 Credit Hours.
(WI) Study theory and instructional strategies for teaching the writing process in elementary and middle schools. Learn stages of the writing process, issues at the different grade levels, teaching with mini-lessons, early literacy, spelling, handwriting, developing listening skills, process writing, and the use of children's literature to teach writing. Prerequisite(s): READ 3330 and EDUC 3330, and concurrent enrollment in READ 4305 and EDUC 4304 or EDUC 4330.

READ 4305. Implement Classroom Reading Instruction. 3 Credit Hours.
Study state and national reading initiatives, approaches to teaching reading, procedures for organizing the elementary and middle school classrooms for reading instruction, research on effective reading-writing instruction, and roles of school personnel and parents in the school reading program. Prerequisite(s): READ 3330 and EDUC 3330, and concurrent enrollment in READ 4304 and EDUC 4304 or EDUC 4330, or permission of department chair.

READ 4312. Literacy Development II. 3 Credit Hours.
(WI) A field-based course surveying characteristics of the transitional/independent literacy learner, methods of instruction for writing, strategy building, comprehension, vocabulary, word identification, utilizing the Texas Essential Knowledge and Skills. Examines typical/atypical reading development and strategies for assessing/addressing reading differences in individual learners. Explores structures and features of expository text including examination of supports and challenges within the text. Prerequisite(s): Admission to teacher education program.

READ 4313. Analysis and Response. 3 Credit Hours.
(WI) This course examines the foundational concepts, principles and best practices relating to assessment, utilizing a variety of evaluation and assessment tools. Students will analyze assessment data related to literacy development in order to plan appropriate instruction for typical/atypical learners. In-depth analyses are prepared to communicate student literacy outcomes to various audiences. Prerequisite(s): Admission to teacher education program.

READ 5370. Literacy Development. 3 Credit Hours.
Analyze models of the reading and writing processes. Emphasis on characteristics of emergent, early, transitional and fluent literacy, instructional strategies in reading and writing, phonics instruction and strategies for teaching English language learners, and the essential knowledge and skills in the language arts curriculum. Prerequisite(s): Admission to the teacher certification program.

READ 5371. Advanced Strategy for Literacy Development. 3 Credit Hours.
Study research in literacy development from early childhood through adulthood. Learn to develop research-based literacy programs from early childhood through adulthood, apply informal diagnostic and remedial procedures for English language learners, elementary, secondary and adult readers, and survey print and non-print materials, including textbooks, trade books and computer software. Prerequisite(s): admission to the teacher certification program.

READ 5372. Language Arts. 3 Credit Hours.
Examine research and strategies for implementing the reading/writing process in classrooms. Explore integrated curriculum, the use of children's literature, classroom management and organization, evaluation, working with diverse learners, and developing support networks. Prerequisite(s): READ 5373 or 9 hours of undergraduate READ courses or permission of department chair.

READ 5373. Foundations of Reading. 3 Credit Hours.
Examine theoretical models of the reading process, historical perspectives on reading instruction, and language learning. Develop an understanding of the construction of reading theory and its relationship to instructional practices. Prerequisite(s): Elementary, secondary, or all-level certification or permission of department chair.

READ 5374. Reading Resources and Materials. 3 Credit Hours.
Study print and non-print materials including content-area textbooks, trade books, and computer software. Evaluate materials and application of reading principles to instruction in content areas. Prerequisite(s): READ 5373 or 9 hours of undergraduate READ courses or permission of department chair.

READ 5375. Reading Research and Assessment. 3 Credit Hours.
Examine methods and techniques employed in reading research and assessment. Review research and the development, implementation, and dissemination of classroom research. Explore the application of appropriate diagnostic and corrective procedures for elementary, secondary, and adult learners having difficulty reading. Prerequisite(s): READ 5373 or 9 hours of undergraduate READ courses or permission of department chair.

READ 5376. Organization and Administration of Reading Programs. 3 Credit Hours.
Study state laws, trends and issues related to the administration of reading programs. Examine instructional issues and reading programs for pre-K through adult learners, censorship issues, textbook/test adoption procedures, roles and responsibilities in the reading program, staff development, and change strategies. Prerequisite(s): READ 5373 or 9 hours of undergraduate READ courses or permission of department chair. Certification Fee - $150.

READ 5388. Reading Problems. 1-3 Credit Hours.
Study of selected problems in reading. Engage in independent research, reading and discussions under the personal direction of the instructor. Topics may vary according to student need. Prerequisite(s): Permission of department chair.

READ 5391. Reading Practicum. 3 Credit Hours.
Apply knowledge gained in previous Reading Specialist certification courses. Practicum candidates will be directly involved in providing 180 clock hours of reading services to students in a local public or private school setting, and will document expertise and experience in all four Standards. Prerequisite(s): READ 5373, READ 5374, READ 5375, READ 5376 and ENGL 5321; two years of creditable classroom teaching experience. Field experience fee - $75.

Religious Studies (RELS)

RELS 3300. Introduction to Religious Studies. 3 Credit Hours.
Examine religious phenomena from a non-confessional, interdisciplinary academic perspective. Explore the concept of religion as a component of culture in a postmodern, diversified, global community. Survey major religious traditions, and trends throughout the history of the discipline.
RELS 3301. Classical Greek Mythology. 3 Credit Hours.
Study classical myths and legends pertaining to the Greek pantheon, heroes, and other supernatural beings and events. Evaluate samples of English literature alluding to classical Greek mythology, and understand the cultural significance of myth within classical Greek society.

RELS 3302. Dead Sea Scrolls. 3 Credit Hours.
Explore the archaeological discovery of the Dead Sea Scrolls. Examine and interpret content of selected manuscripts. Evaluate the history of controversies surrounding Scrolls management and presentation to the academic world.

RELS 3303. Hebrew Scriptures. 3 Credit Hours.
Examine the canonical Hebrew scriptures in the light of present-day scholarship. Read translated scriptural passages to evaluate sources, historical and cultural milieus, and forms of modern criticism. Reading competency in the Hebrew language is not required.

RELS 3304. World Religions. 3 Credit Hours.
Study the philosophical, ethical, and social dimensions of the religions of the world. Special emphasis on the major world religions, but lesser known religions will be explored to gain a broad view of the diversity of religious experience and tradition.

RELS 3305. Wicca and Neo-Paganism. 3 Credit Hours.
A critical examination of Wicca and Neo-pagan groups in the US. Explores the history of such groups and exposes the student to academic research in this area.

RELS 3329. Church and State. 3 Credit Hours.
Surveys church-state relations in U.S. history. Examines the role religion has played in American political life, culture, and society. This course is cross-listed with HIST 3329; only one may be taken for credit.

RELS 3355. Religion and Politics. 3 Credit Hours.
Explores the historic development of church-state relations in the United States, the evolution of church-state constitutional law, and the impact of this history and law on the current political environment. Special emphasis placed on the role played by religion in political campaigns, local politics, and interest group activities. This course is cross-listed with POLI 3355; only one may be taken for credit.

RELS 4300. Prophets of Ancient Israel. 3 Credit Hours.
Examine prophet types in light of their historical and cultural milieu. Understand the differences between the eponymous ancestors, leaders, wonder-workers, and literary prophets of Ancient Israel, and evaluate the relationship between prophecy, prophets, and scribal culture in the ancient Near East.

RELS 4310. Myth and Ritual. 3 Credit Hours.
Examine the religious beliefs and practices of small-scale societies based upon ethnographic literature. Special emphasis on altered states, shamanism, bewitching, and religious practitioners. Maybe crosslisted with ANTH 4310. Only one may be taken for credit.

RELS 4312. Psychology of Religion. 3 Credit Hours.
Discover the major issues, theories, and psychological approaches to the study of religion, and address the practice of pastoral counseling. Explore the formation of meaning systems, motivation for behaviors, and psychological accounts for religious impulses and phenomena. Prerequisite(s): None.

RELS 4315. Philosophy of Religion. 3 Credit Hours.
Examine religious phenomena, and concepts of God, miracles, claims of religion, the problem of evil, and religious ethics. Study and evaluate the relationship of religion and philosophy, and the place of philosophy within the religious experience. Prerequisite(s): None.

RELS 4320. Religious Terrorism. 3 Credit Hours.
Examine the religious motivations, support, and tactics behind the phenomena of domestic and foreign terrorism. Prerequisite(s): None.

RELS 4330. Religions of the Middle East. 3 Credit Hours.
Examine the history, beliefs, practices, and conflicts behind the major religious traditions of Judaism, Christianity, and Islam. Prerequisite(s): None.

RELS 4389. Special Topics in Religion. 3 Credit Hours.
Examine selected topics within religious studies. May be repeated for credit when topics vary. Prerequisite(s): None.

RELS 5300. Introduction to Religious Studies. 3 Credit Hours.
Examine religion as an aspect of culture in a postmodern, diversified, global community. Evaluate the history and concepts used in the academic study of religion, and the major religious traditions of the world. Prerequisite(s): None.

RELS 5304. Sociology of Religion. 3 Credit Hours.
Examine religion and religious phenomena from the perspectives, theories, and methods of sociology. Evaluate the major works of classical theorists such as Durkheim, Weber, and Marx, and recent theorists such as Berger and Stark.

RELS 5310. Anthropology of Religion. 3 Credit Hours.
Apply anthropology to religion through a study of ethnographies, and literature pertaining to the study of religious phenomena. Explore myth and ritual, altered states, healing and bewitching, and the roles of religious practitioners. This course is cross-listed with ANTH 5310, and only one may be taken for credit.

RELS 5312. Psychology of Religion. 3 Credit Hours.
Examine major issues and theories in the psychological approach to the study of religious phenomena. Analyze the literature of theorists, the contributions of neuroscience, evolutionary psychology, consciousness research, and regressive hypnotherapy in the study of religion.

RELS 5315. Philosophy of Religion. 3 Credit Hours.
Examine religious phenomena, and concepts of God, miracles, claims of religion, the problem of evil, and religious ethics. Study and evaluate the relationship of religion and philosophy, and the place of philosophy within the religious experience.

RELS 5320. Religious Terrorism. 3 Credit Hours.
Examines the religious motivations, support, and tactics behind the phenomena of domestic and foreign terrorism. Analyze case studies and histories of specific terrorist organizations, justifications for violence, and terrorist targets. Maybe crosslisted with HLS 5320. Only one may be taken for credit.

RELS 5329. Church and State. 3 Credit Hours.
Explores the interaction of religion and political life in the US, beginning with the First Great Awakening and early life under the new Constitution, through the Second Great Awakening and up to the present day. Readings will be primary sources in American religious and political thought.

RELS 5355. Religion and Politics. 3 Credit Hours.
Provides an overview of the influence of religion on politics in the US. Examines the relationship between religion and political mobilization, interest group politics, public opinion, race and ethnicity, foreign policy, and elections.

RELS 5389. Special Topics in Religion. 3 Credit Hours.
Examine selected topics within religious studies. Students may enroll for additional credit hours when topics vary.
Social Science (SOSC)

SOSC 3300. Social Science Proseminar. 3 Credit Hours.
(WI) Learn professional communication, advanced writing expectations, and ethics in professional writing in preparation to pursue advanced studies in the social sciences.

Social Work (SOWK)

SOWK 3300. Introduction to Social Work. 3 Credit Hours.
Examine the profession of social work, its historical development, values, ethics, and various fields of practice, with an emphasis on the generalist perspective and populations at risk. 30 hours of volunteer work with a non-profit community agency is required as part of the course.

SOWK 3301. Methods and Skills of Social Work. 3 Credit Hours.
Study the Generalist Social Work Practice Model. Develop social work skills in the principles of conducting a helping interview, initial client contact, attending and listening, empathetic responses, exploration and elaboration, questioning, gaining cooperation, self-disclosure, and termination. Understand issues of problem-solving with diverse populations and persons from different cultural backgrounds, and examine ethical issues of helping relationships.

SOWK 3302. Social Welfare in the United States. 3 Credit Hours.
Study human services in the United States and how they have developed over time. Special emphasis on services and programs directed at the most vulnerable populations in our society. Race, ethnicity, gender, and socioeconomic status are considered in an effort to understand the need for and eligibility for various human services and social welfare programs.

SOWK 3303. Social Work with Diverse Populations. 3 Credit Hours.
Examine theoretical, political, historical, cultural, and economic issues related to diverse populations. Special emphasis on social work practice with oppressed populations, societal forces that promote discriminatory and oppressive values, beliefs, and attitudes.

SOWK 3304. Human Behavior and Social Environment I. 3 Credit Hours.
Use systems theory as organizing perspective to examine the biopsychosocial and spiritual factors influencing human development. Analyze cultural, socioeconomic, and structural factors affecting human functioning, and their relationship to and implications for social work practice.

SOWK 3305. Biological Foundations of Social Work Practice. 3 Credit Hours.
Explore issues related to human biological functioning as applied to social work practice. Emphasis on the functioning of the human body across the lifespan, healthy living and prevention of illness, and illness and disabilities (physical and mental) that social workers encounter in clients.

SOWK 3310. Human Behavior and Social Environment II. 3 Credit Hours.
Explore issues related human biological functioning as applied to social work practice. Emphasis on theories and knowledge about the range of social systems in which individuals live and the ways in which systems deter people from achieving well-being, including values and ethical issues related to biopsychosocial theories. Prerequisite(s): SOWK 3304.

SOWK 3311. Generalist Practice I: Micro Systems. 3 Credit Hours.
Examine theories and methodologies needed for generalist social work practice with individuals and small groups. Evaluate the value base of the social work profession and basic practice concepts for understanding a variety of intervention models in diverse settings. Prerequisite(s): Admission to the Social Work Program and SOWK 3301.

SOWK 3315. Writing for Professional Social Work. 3 Credit Hours.
Social work is a field of practice that places heavy demands for professional-quality writing skills on its members. This course should help improve each student's professional writing ability. Prerequisite(s): ENGL 1301.

SOWK 4300. Social Welfare Policy. 3 Credit Hours.
(WI) Study social welfare as society's response to the needs of individuals, groups, and communities. Examine the history of policy development reflecting society's changing values. Analyze policy to determine impact on various systems, including populations at risk, and explore the role of social policy in promoting social justice and social change. Prerequisite(s): SOWK 3302.

SOWK 4301. Social Work and Mental Health. 3 Credit Hours.
The course emphasizes the Generalist Practice of Social work in mental health in areas such as case management, assessment, treatments, and working in interdisciplinary teams. The current Diagnostic and Statistical Manual of Mental Disorders, to assess mental issues will be used. Prerequisite(s): SOWK 3300, SOWK 3304.

SOWK 4305. Rural Social Work. 3 Credit Hours.
The purpose of the course is to provide the student with an overview of social welfare services for rural communities and people. Topics covered include rural communities, rural culture and behavior, diversity, social welfare policy and services, professional values and ethics, history of rural social services, and professional practice with rural communities. Prerequisite(s): None.

SOWK 4311. Child Welfare. 3 Credit Hours.
Examine the history and practice of child welfare. Study programs and policies dedicated to child welfare, and learn the social work practice settings for the discipline.

SOWK 4320. Social Work Research Methods & Statistics. 3 Credit Hours.
Study basic principles and concepts of the scientific method and social science research as applied to social work. Learn descriptive and inferential statistical analysis and critical analysis of research, including quantitative and qualitative research designs, measurement, sampling. Students should have completed a statistics course before enrolling. Prerequisite(s): Statistics.

SOWK 4321. Writing for Social Work Research. 3 Credit Hours.
(WI) Apply social work knowledge to facilitate understanding and interpretation of research findings. Develop the evaluation and analysis process, and understand ethical issues in social science research. Explore evaluation of practice, critical evaluation of published research, and completion of a research proposal. Prerequisite(s): SOWK 4300 and SOWK 4320.

SOWK 4324. Generalist Practice II: Macro. 3 Credit Hours.
Study theory and practice of social change at organizational, community, society, and global levels. Examine methods of resource delivery and redistribution, and learn models of community organization, including community development, social action, and social planning. Prerequisite(s): SOWK 4300.

SOWK 4333. Social Work Field Seminar. 3 Credit Hours.
Integrate field experience and social work skills in order to transition from student to professional social worker. The Field Seminar is a course taken concurrently with a block field placement (SOWK 4932). Serves as an integrative capstone course for the field placement and social work program. Corequisite: SOWK 4932. May not be taken for credit if SOWK 4684 or SOWK 4685 has been completed.
SOWK 4334. Social Work Seminar. 1-3 Credit Hours.
Study current trends and issues related to professional social work practice, social service delivery, and populations at risk. May be repeated for credit when topics vary. Prerequisite(s): Junior standing & permission of department chair.

SOWK 4388. Social Work Problems. 1-6 Credit Hours.
Engage in independent reading and research on selected topics within social work. Entry into the course will be arranged by faculty member teaching the course.

SOWK 4684. Social Work Field Placement I. 6 Credit Hours.
Integrate theory and professional skill in a supervised, social work agency-based field placement. A minimum of 225 hours required to be completed and participation in a three-hour-per-week seminar. Prerequisite(s): Acceptance into the field program and completion of SOWK 3301, SOWK 3303, SOWK 3311 and SOWK 3304. Internship fee: $125.

SOWK 4685. Social Work Field Placement II. 6 Credit Hours.
Integrate theory and professional skill in a supervised, social work agency-based field placement. Special emphasis on generalist social work practice and on the interrelationships among human behavior, social policy, research, and practice. A minimum of 225 hours required to be completed and participation in a three-hour-per-week seminar. Prerequisite(s): Admission to the major; SOWK 4684 with a grade of C or better. It is advised that SOWK 4324 be taken as a co-requisite. Internship fee: $125.

SOWK 4932. Social Work Field Instruction. 9 Credit Hours.
Integrate social work theory and professional skill within a supervised, agency-based generalist social work setting. A minimum of 450 hours required to be completed. Prerequisite(s): Acceptance into the field program, SOWK 4321. Corequisite SOWK 4333. May not be taken for credit if SOWK 4684 or SOWK 4685 has been completed. Internship fee: $175.

Sociology (SOCI)

SOCI 3301. Sociology of the Family. 3 Credit Hours.
Study the family as a social institution with emphasis on formation, functions, maintenance, child rearing, and family disorganization.

SOCI 3303. Race and Ethnicity. 3 Credit Hours.
Analyze relationships between dominant groups and minority groups that make up American society. Examine theories of race relations and prejudice, the meaning of racial differences, group conflict, and modes of accommodation.

SOCI 3304. Sociological Theory. 3 Credit Hours.
(WI) Examine the major schools of sociological thought, including perspectives from both classic and contemporary sociological theory.

SOCI 3305. Criminology. 3 Credit Hours.
Examine theories of criminology and significant research on causes, extent, cost and ecology of crime, police, criminal, and juvenile courts, and prisons and reformatories. Special emphasis on prevention and rehabilitation. Credit for both CRIJ 3305 and SOCI 3305 will not be awarded.

SOCI 3308. Deviant Behavior. 3 Credit Hours.
Examine factors and conditions leading to behaviors that violate and deviate from fundamental social values. Analyze the relationship of personal and social maladjustment in relation to the various theories of deviant behavior.

SOCI 3310. Sociology of Aging. 3 Credit Hours.
Study the reciprocal relationship between society and those considered aged by society, utilizing concepts and theoretical frameworks applicable to that population group. Explore the social forces that impinge on the aging process, including socially constructed images of the aged, and patterns of inequality of gender, race, and economics.

SOCI 3312. Environmental Sociology. 3 Credit Hours.
(WI) Examine relationships and interactions between society and the environment. Explore how the natural world influences the way societies are organized, with special emphasis on human communities as part of natural ecosystems. Prerequisite(s): None.

SOCI 3315. Methods of Sociological Research. 3 Credit Hours.
(WI) Learn the principles and methods of social research, including research design, methods of observation, questionnaires, and interviews. Apply qualitative and quantitative techniques of inference, analysis, and research report writing, to gain practical experience in limited research studies.

SOCI 3340. Media and Society. 3 Credit Hours.
Examine the interactions of culture and the media with a focus on representations of race, class, gender, and sexuality. Evaluate contemporary mass media to explore the unique relationship between media content, the industry that creates it, and audiences whose interpretations and demands constitute its market.

SOCI 4301. The Military Family. 3 Credit Hours.
Examine the relationship between the work organization and the family in the armed forces of the United States. Using a sociological perspective, analyze and discuss contemporary issues, situations, problems, and policies relevant to military families.

SOCI 4303. Social Inequalities. 3 Credit Hours.
Examine social inequality and categories of difference from a sociological perspective. Analyze social difference and stratification on the basis of race/ethnicity, class, gender, religion, and sexuality by examining how these categories are constructed, institutionalized, and experienced. Special emphasis on economic and labor-based inequality through the lens of contemporary global processes.

SOCI 4304. Sociology of Religion. 3 Credit Hours.
Examine the principles of religion, religious belief, and practice as a sociological concept. Special emphasis on the relationship of religion to the progress and stability of the social order.

SOCI 4305. Sociological Theory. 3 Credit Hours.
(WI) Examine the major schools of sociological thought, including perspectives from both classic and contemporary sociological theory.

SOCI 4310. Sociology of the Body. 3 Credit Hours.
Study the body as the container and expression of the self, as the object of social control, and the body as it relates to race, gender, sex, class, age, ability, sexuality, and transgender identities.

SOCI 4311. Sociology of Sexuality. 3 Credit Hours.
Study how sexuality is perceived, defined, and experienced in the context of society. Analyze the influence of sexuality on our lives, reflected in social norms, attitudes and beliefs, through public and private policies and practices, and social institutions.

SOCI 4312. Gender in Society. 3 Credit Hours.
Examine socialization to sex roles, and the male/female differences in family, work, and political behavior. Special Emphasis on male/female inequality, effects of gender in education and religion, and current changes in sex role definitions.
SOCI 4313. Development and Social Change. 3 Credit Hours.
Explore social processes and social problems as they are contained in the highly interdependent world system. Examine social change and development through historical, comparative, and critical perspectives. Analyze the problem of how and why societies and cultures around the world change, and evaluate whether those changes promote justice, equity, democracy, and development of human potential.

SOCI 4315. Social Science Statistics. 3 Credit Hours.
Apply the 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. Explore the role of statistics in social work, sociology, criminal justice, political science, and gerontology. SPSS is utilized for data analysis.

SOCI 4316. Methods of Sociological Research. 3 Credit Hours.
(WI) Learn the principles and methods of social research, including research design, methods of observation, questionnaires, and interviews. Apply qualitative and quantitative techniques of inference, analysis, and research report writing, to gain practical experience in limited research studies.

SOCI 4317. Qualitative Research Methods. 3 Credit Hours.
Introduces methodological approaches corresponding to qualitative research methods, with special emphases on interviewing, observation techniques, ethnographic field-based methods, and content analysis. Prerequisite/Corequisite: SOCI 3315 or CRIJ 4316.

SOCI 4320. Social Psychology and Interaction. 3 Credit Hours.
Explore symbolic interactionism, and the influence of society, groups, culture, and other persons on the attitudes, behavior, and experiences of the individual. Prerequisite(s): None.

SOCI 4388. Sociology Problems. 1-6 Credit Hours.
Engage in independent reading, research and discussion on selected topics in sociology. Entry into this course will be arranged with the sociology counselor.

SOCI 4389. Special Topics in Sociology. 1-3 Credit Hours.
Engage in independent reading, research, discussion, and paper writing under personal direction of instructor. May be taken more than once for credit if topics vary. Prerequisite(s): May be taken more than once for credit if topics vary.

SOCI 5304. Sociology of Religion. 3 Credit Hours.
An critical examination of religions and religious phenomena from the perspectives, theories, and methods of sociology. Reviews the major works of classical theorists such as Durkheim, Weber, and Marx, and recent theorists such as Berger and Stark.

SOCI 5305. Theoretical Sociology. 3 Credit Hours.
Study the historical development of sociological theory by examining the major works of classical, contemporary, postmodern and modern social theorists.

SOCI 5388. Sociology Problems. 3 Credit Hours.
Engage in independent reading, research, and discussion on selected topics in sociology, under the supervision of an instructor. May be repeated as topic varies for up to six hours of credit.

SOCI 5389. Special Topics in Sociology. 3 Credit Hours.
Explore selected topics within sociology. May be repeated as topics vary.

Spanish (SPAN)
SPAN 3600. Spanish Language and Culture. 6 Credit Hours.
This course is designed to allow students to study of intersections of language and culture in Spanish-speaking countries with emphasis on continued development of speaking, writing, and reading skills.

Special Education (SPED)
SPED 3361. Survey Exceptional Learners. 3 Credit Hours.
Study characteristics and educational programs for individuals with disabilities. Examine the legislation and litigation related to special education and the referral, diagnosis, and placement of exceptional learners. A field experience is required. Co-requisite: Passing score on the THEA, ACCUPLACER, COMPASS, or ASSET.

SPED 4362. Special Education Rules and Regulations for Teacher. 3 Credit Hours.
Analyze laws and litigation that affect the education of students with disabilities. Examine 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(s): SPED 3361.

SPED 4363. Teaching Learners with Learning Disabilities. 3 Credit Hours.
Analyze laws and litigation that affect the education of students with disabilities. Examine 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(s): SPED 3361.

SPED 4364. Teaching Learners with Developmental Disabilities. 3 Credit Hours.
Study the etiology and characteristics associated with deficits in development. Examine effects of developmental disabilities in the areas of language acquisition and physical, social and emotional functioning. Explore 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(s): SPED 3361.

SPED 4365. Behavioral Management for the Classroom. 3 Credit Hours.
Explore managing a classroom that includes students with disabilities. Study 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. Also study typical characteristics associated with emotional disabilities and identification procedures utilized. Field experience required. Prerequisite(s): SPED 3361.

SPED 4366. Curriculum Modifications and Accommodations for General Education. 3 Credit Hours.
Study methods and approaches for adapting educational processes for students with disabilities. Emphasis on specialized teaching methods, preparation of materials, use of technology for adapting instruction and developing modifications and accommodations for the general education curriculum. Field experience required.
SPED 4367. Programs For Young Children with Disabilities. 3 Credit Hours.
Study young children with disabilities from birth to 6 years old, with an emphasis on the techniques for implementing programs to meet the needs of the child and the family. Learn early intervention, medical intervention, and public school educational programming for at-risk infants, toddlers, and young children, as well as parent involvement models to promote optimum parent-child and parent-professional relationships. Special emphasis on recent research related to early childhood special education. Field experience required. Prerequisite(s): SPED 3361.

SPED 4383. Teaching Learners with Learning and Behavior Anomalies. 3 Credit Hours.
Learning disabilities, emotional disturbances, and behavior management are investigated as intertwining educational divisions. Histories, definitions, etiologies, and characteristics are examined in conjunction with teaching methods for academics and social skills as well as effective inclusive practices. Strategies for successful collaboration with parents and various educators are explored. Field experience is required. Prerequisite: SPED 3361.

SPED 4388. Special Education Problems. 1–3 Credit Hours.
Study of selected problems in special education. Engage in independent research, reading and discussions under the personal direction of the instructor, topics may vary according to student need. Prerequisite(s): Junior or senior standing and admission to the Teacher Education Program and permission of the instructor and Curriculum and Instruction Program Coordinator.

SPED 5305. Introduction to Exceptional Learners. 3 Credit Hours.
Study learner characteristics and an examination of instructional techniques that promote academic, personal, and social growth in exceptional learners also examination of the process and procedures relating to the services provided to learners with disabilities. Prerequisite(s): 18 hours of professional education, certification, or admission to the graduate teacher certification program.

SPED 5311. Behavioral Management in Special Education Environment. 3 Credit Hours.
Study characteristics of students with emotional disabilities, including the application of behavioral management strategies appropriate for students with emotional and behavioral disabilities. Engage in functional assessments of behavior, development of behavior intervention plans, strategies for teaching appropriate behavior, crisis management strategies, and integrating behavior management with instructional programs in school, community and home settings. Prerequisite(s): Admission to the graduate teacher certification program.

SPED 5313. Advanced Study of Learning Disabilities. 3 Credit Hours.
Study research on learning disabilities, including causation, diagnosis and educational programming. Learn methods for teaching students with learning disabilities, adapting general education classrooms to accommodate the inclusion of students with learning disabilities, and collaboration with parents, paraprofessionals and general education teachers. Prerequisite(s): Admission to the graduate teacher certification program.

SPED 5315. Advanced Study of Developmental Disabilities. 3 Credit Hours.
Study research-based instructional methods appropriate for students with developmental disabilities. Learn assessment and teaching of functional academic skills, life management and communication skills, collaborating with parents, paraprofessionals, general education teachers and related service providers, community-based instruction, and vocational planning and preparation. Prerequisite(s): Admission to the graduate teacher certification program.

SPED 5325. Appraisal Exception for Learners. 3 Credit Hours.
Analyze standardized assessments of the academic achievement of students referred for or currently receiving special education services, administer, score, analyze, report and plan programs according to results. Prerequisite(s): PSYC 5301 or concurrent enrollment or permission of Curriculum and Instruction Program Coordinator.

SPED 5327. Teaching Students with Severe and Profound Disabilities. 3 Credit Hours.
Study 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, and transition and placement issues. Prerequisite(s): SPED 5305 or permission of Curriculum and Instruction Chair.

SPED 5328. Case Management Education Diagnosticians. 3 Credit 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 Curriculum & Instruction Program Coordinator. Prerequisite(s): SPED 5325.

SPED 5329. Assessing Cognitive Abilities. 3 Credit Hours.
Standardized assessment of the cognitive and adaptive behavior abilities of exceptional students. Includes test administration, scoring, analysis, and program planning. Prerequisite(s): PSYC 5381 or permission of Curriculum & Instruction Program Coordinator.

SPED 5384. Special Education Teaching Internship. 3 Credit 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. Prerequisite(s): admission to a teacher certification program at TAMUCT; satisfactory performance in the professional development courses preceding the internship. May be repeated for credit. Field experience fee $75.

SPED 5385. Education Diagnostician Internship. 3 Credit Hours.
Supervised professional activities for persons preparing for certification as an educational diagnostician. Professional activities will include test administration, scoring, analysis, diagnosis, report writing, and program planning. Interns will be required to demonstrate competence in the performance of professional duties as an educational diagnostician. A minimum of 300 hours of documented related professional activities will be required. Prerequisite(s): SPED 5305, SPED 5325 and SPED 5329 or permission of Curriculum & Instruction Program Coordinator. Field experience fee: $75.
Lower Level and General Education Courses

The courses listed in this section are for informational purposes only; they are NOT offered at A&M-Central Texas.

Courses offered meeting core curriculum component areas are designated (010, 020, 030, etc...) at the beginning of the course description.

ACCT 2301. Principles of Financial Accounting. 3 Credit Hours.
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.

ACCT 2302. Principles of Managerial Accounting. 3 Credit Hours.
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.

AGRI 1107. Agronomy (Lab). 1 Credit Hour.
(030) This laboratory-based course accompanies AGRI 1307. Laboratory activities will reinforce the fundamental 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 1115. Horticulture (Lab). 1 Credit Hour.
(030) This laboratory-based course accompanies AGRI 1315. Laboratory activities will reinforce the structure, growth, and development of horticultural plants. Examination of environmental effects, basic principles of reproduction, production methods ranging from outdoor to controlled climates, nutrition, and pest management. (Cross-listed as HORT 1101).

AGRI 1119. Introductory Animal Science (Lab). 1 Credit Hour.
(030) This laboratory-based course accompanies AGRI 1319 Introductory Animal Science (lecture). Laboratory activities will reinforce scientific animal production and the importance of livestock and meat industries. Selection, reproduction, nutrition, management, and marketing of livestock.

AGRI 1307. Agronomy (Lecture). 3 Credit Hours.
(030) 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 1315. Horticulture (Lecture). 3 Credit Hours.
(030) Structure, growth, and development of horticultural plants. Examination of environmental effects, basic principles of reproduction, production methods ranging from outdoor to controlled climates, nutrition, and pest management. (Cross-listed as HORT 1301).

AGRI 1319. Introductory Animal Science (Lecture). 3 Credit Hours.
(030) Scientific animal production and the importance of livestock and meat industries. Selection, reproduction, nutrition, management, and marketing of livestock.

AGRI 1407. Agronomy (Lecture + Lab). 4 Credit Hours.
(030) This lecture and lab course should combine all of the elements of AGRI 1307 Agronomy (lecture) and AGRI 1107 Agronomy (lab), including the learning outcomes listed for both courses.

AGRI 1415. Horticulture (Lecture + Lab). 4 Credit Hours.
(030) This lecture and lab course should combine all of the elements of AGRI 1315 Horticulture (lecture) and AGRI 1115 Horticulture (lab), including the learning outcomes listed for both courses. (Cross-listed as HORT 1401).

AGRI 1419. Introductory Animal Science (Lecture + Lab). 4 Credit Hours.
(030) This lecture and lab course should combine all of the elements of AGRI 1319 Introductory Animal Science (lecture) and AGRI 1119 Introductory Animal Science (lab), including the learning outcomes listed for both courses.

AGRI 2317. Introduction to Agricultural Economics. 3 Credit Hours.
(080) Fundamental economic principles and their application in the agricultural industry.

ANTH 2101. Physical Anthropology Lab. 1 Credit Hour.
(030) This laboratory-based course accompanies ANTH 2301 Physical Anthropology (lecture) and includes demonstrations of the major principles of the lecture course.

ANTH 2301. Physical Anthropology (lecture). 3 Credit Hours.
(080) The study of human origins and bio-cultural adaptations. Topics may include primatology, genetics, human variation, forensics, health, and ethics in the discipline.

ANTH 2302. Introduction to Archeology. 3 Credit Hours.
(040) (080) The study of the human past through material remains. The course includes a discussion of methods and theories relevant to archaeological inquiry. Topics may include the adoption of agriculture, response to environmental change, the emergence of complex societies, and ethics in the discipline.

ANTH 2346. General Anthropology. 3 Credit Hours.
(040) (080) The study of human beings, their antecedents, related primates, and their cultural behavior and institutions. Introduces the major subfields: physical and cultural anthropology, archeology, linguistics, their applications, and ethics in the discipline.
ANTH 2401. Physical Anthropology (Lecture + Lab). 4 Credit Hours.
(030) This lecture and lab course should combine all of the elements of ANTH 2301 Physical Anthropology (lecture) and ANTH 2101 Physical Anthropology (lab), including the learning outcomes listed for both courses.

ANTH 2351. Cultural Anthropology. 3 Credit Hours.
(040) (080) The study of human cultures. Topics may include social organization, institutions, diversity, interactions between human groups, and ethics in the discipline.

ARAB 2311. Intermediate Arabic I. 3 Credit Hours.
(040) Review and application of skills in listening comprehension, speaking, reading, and writing. Emphasizes conversation, vocabulary acquisition, reading, composition, and culture.

ARAB 2312. Intermediate Arabic II. 3 Credit Hours.
(040) Review and application of skills in listening comprehension, speaking, reading, and writing. Emphasizes conversation, vocabulary acquisition, reading, composition, and culture.

ARCH 1301. Architectural History I. 3 Credit Hours.
(040) (050) Part one of a survey of the history of world architecture from pre-history to the present. This course focuses on the period from pre-history up to at least the 14th Century. Course is intended to fulfill all or part of the following National Architectural Accrediting Board (NAAB) Student Performance Criteria: A.7 History and Global Culture.

ARCH 1302. Architectural History II. 3 Credit Hours.
(040) (050) Part two of a survey of the history of world architecture from pre-history to the present. This course focuses on the period of neoclassicism up to the modern era. Course is intended to fulfill all or part of the following National Architectural Accrediting Board (NAAB) Student Performance Criteria: A.7 History and Global Culture.

ARCH 1303. Architectural Design I. 3 Credit Hours.
(050) An introductory studio providing foundation in the conceptual, perceptual, and manual skills necessary for two-dimensional and three-dimensional design. Course is intended to fulfill all or part of the following National Architectural Accrediting Board (NAAB) Student Performance Criteria: A.1 Professional Communication Skills A.2 Design Thinking Skills A.4 Architectural Design Skills A.5 Ordering Systems.

ARCH 1307. Architectural Graphics I. 3 Credit Hours.
(050) Introduction to basic drawing methods and tools. Exploration of techniques available for the design process with emphasis on two-dimensional and three-dimensional composition. Course is intended to fulfill all or part of the following National Architectural Accrediting Board (NAAB) Student Performance Criteria: A.1 Professional Communication Skills.

ARCH 1311. Introduction to Architecture. 3 Credit Hours.
(040) (050) (080) An introduction to architecture that explores the practices, principles, and wider context of architecture and design. Focuses on the role of architecture in society, culture, and the broader physical context of the built environment. Course is intended to fulfill all or part of the following National Architectural Accrediting Board (NAAB) Student Performance Criteria: A.8 Cultural Diversity and Social Equity D.1 Stakeholder Roles in Architecture.

ARTS 1301. Art Appreciation. 3 Credit Hours.
(050) A general introduction to the visual arts designed to create an appreciation of the vocabulary, media, techniques, and purposes of the creative process. Students will critically interpret and evaluate works of art within formal, cultural, and historical contexts.

ARTS 1303. Art History I. 3 Credit Hours.
(040) (050) A chronological analysis of the historical and cultural contexts of the visual arts from prehistoric times to the 14th century.

ARTS 1304. Art History II. 3 Credit Hours.
(040) (050) A chronological analysis of the historical and cultural contexts of the visual arts from the 14th century to the present day.

ARTS 1313. Foundations of Art. 3 Credit Hours.
(050) Introduction to the creative media designed to enhance artistic awareness and sensitivity through the creative and imaginative use of art materials and tools. Includes art history and culture through the exploration of a variety of art works with an emphasis on aesthetic judgment and growth.

ASTR 1103. Stars and Galaxies Laboratory. 1 Credit Hour.
(030) Study of stars, galaxies, and the universe outside our solar system. May or may not include a laboratory. (Cross-listed as PHYS 1403, 1303, & 1103).

ASTR 1104. Solar System Laboratory. 1 Credit Hour.
(030) Study of the sun and its solar system, including its origin. May or may not include a laboratory. (Cross-listed as PHYS 1403, 1303, & 1103).

ASTR 1303. Stars and Galaxies (Lecture). 3 Credit Hours.
(030) Study of stars, galaxies, and the universe outside our solar system. May or may not include a laboratory. (Cross-listed as PHYS 1403, 1303, & 1103).

ASTR 1304. Solar System (Lecture). 3 Credit Hours.
(030) Study of the sun and its solar system, including its origin. May or may not include a laboratory. (Cross-listed as PHYS 1403, 1303, & 1103).

ASTR 1305. Stars and Galaxies (Lecture + Lab). 4 Credit Hours.
(030) Study of stars, galaxies, and the universe outside our solar system. May or may not include a laboratory. (Cross-listed as PHYS 1403, 1303, & 1103).

BCIS 1305. Business Computer Applications. 3 Credit Hours.
(080) Students will study computer terminology, hardware, and software related to the business environment. The focus of this course is on business productivity software applications and professional behavior in computing, including word processing (as needed), spreadsheets, databases, presentation graphics, and business-oriented utilization of the Internet.

BIOL 1106. Biology for Science Majors Lab I. 1 Credit Hour.
(030) This laboratory-based course accompanies Biology 1306, Biology for Science Majors I. 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.

BIOL 1107. Biology for Science Majors Lab II. 1 Credit Hour.
(030) This laboratory-based course accompanies Biology 1307, Biology for Science Majors II. 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.
BIOL 1108. Biology for Non-Science Majors Lab I. 1 Credit Hour.
(030) This laboratory-based course accompanies BIOL 1308, Biology for Non-Science Majors I. Laboratory activities will reinforce a survey of biological principles with an emphasis on humans, including chemistry of life, cells, structure, function, and reproduction.

BIOL 1109. Biology for Non-Science Majors Laboratory II. 1 Credit Hour.
(030) This laboratory-based course accompanies BIOL 1309, Biology for Non-Science Majors II. Laboratory activities will reinforce a survey of biological principles with an emphasis on humans, including evolution, ecology, plant and animal diversity, and physiology.

BIOL 1111. General Botany (Lab). 1 Credit Hour.
(030) This laboratory-based course accompanies Biology 1311, General Botany. Laboratory activities will reinforce fundamental biological concepts relevant to plant physiology, life cycle, growth and development, structure and function, and cellular and molecular metabolism. The role of plants in the environment, evolution, and phylogeny of major plant groups, algae, and fungi. (This course is intended for science majors.)

BIOL 1113. General Zoology (Lab). 1 Credit Hour.
(030) This laboratory-based course accompanies Biology 1313, General Zoology. Laboratory activities will reinforce fundamental biological concepts relevant to animals, including systematics, evolution, structure and function, cellular and molecular metabolism, reproduction, development, diversity, phylogeny, and ecology. (This course is intended for science majors.)

BIOL 1306. Biology for Science Majors I (Lecture). 3 Credit Hours.
(030) 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.

BIOL 1307. Biology for Science Majors II (Lecture). 3 Credit Hours.
(030) 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. Prerequisite(s): MATH 1314 or concurrent enrollment in higher-level mathematics is recommended.

BIOL 1308. Biology for Non-Science Majors I. 3 Credit Hours.
(030) Provides a survey of biological principles with an emphasis on humans, including chemistry of life, cells, structure, function, and reproduction.

BIOL 1309. Biology for Non-Science Majors II (Lecture). 3 Credit Hours.
(030) This course will provide a survey of biological principles with an emphasis on humans, including evolution, ecology, plant and animal diversity, and physiology.

BIOL 1311. General Botany (Lecture). 3 Credit Hours.
(030) Fundamental biological concepts relevant to plant physiology, life cycle, growth and development, structure and function, and cellular and molecular metabolism. The role of plants in the environment, evolution, and phylogeny of major plant groups, algae, and fungi. (This course is intended for science majors.) Prerequisite(s): MATH 1314 or concurrent enrollment in higher level mathematics is recommended.

BIOL 1313. General Zoology (Lecture). 3 Credit Hours.
(030) Fundamental biological concepts relevant to animals, including systematics, evolution, structure and function, cellular and molecular metabolism, reproduction, development, diversity, phylogeny, and ecology. (This course is intended for science majors.) Prerequisite(s): MATH 1314 or concurrent enrollment in higher level mathematics is recommended.

BIOL 1322. Nutrition & Diet Therapy. 3 Credit Hours.
(030) (080) This course introduces general nutritional concepts in health and disease and includes practical applications of that knowledge. Special emphasis is given to nutrients and nutritional processes including functions, food sources, digestion, absorption, and metabolism. Food safety, availability, and nutritional information including food labels, advertising, and nationally established guidelines are addressed. (Cross-listed as HECO 1322).

BIOL 1406. Biology for Science Majors I (Lecture + Lab). 4 Credit Hours.
(030) This lecture and lab course should combine all of the elements of BIOL 1306 Biology for Science Majors I (lecture) and BIOL 1106 Biology for Science Majors I (lab), including the learning outcomes listed for both courses.

BIOL 1407. Biology for Science Majors II (Lecture + Lab). 4 Credit Hours.
(030) This lecture and lab course should combine all of the elements of BIOL 1307 Biology for Science Majors II (lecture) and BIOL 1107 Biology for Science Majors II (lab), including the learning outcomes listed for both courses.

BIOL 1408. Biology for Non-Science Majors I (Lecture + Lab). 4 Credit Hours.
(030) This lecture and lab course should combine all of the elements of BIOL 1308 Biology for Non-Science Majors I (lecture) and BIOL 1108 Biology for Non-Science Majors I (lab), including the learning outcomes listed for both courses.

BIOL 1409. Biology for Non-Science Majors II (Lecture + Lab). 4 Credit Hours.
(030) This lecture and lab course should combine all of the elements of BIOL 1309 Biology for Non-Science Majors II (lecture) and BIOL 1109 Biology for Non-Science Majors II (lab), including the learning outcomes listed for both courses.

BIOL 1411. General Botany (Lecture + Lab). 4 Credit Hours.
(030) Fundamental biological concepts relevant to plant physiology, life cycle, growth and development, structure and function, and cellular and molecular metabolism. The role of plants in the environment, evolution, and phylogeny of major plant groups, algae, and fungi.

BIOL 1413. General Zoology. 4 Credit Hours.
(030) Fundamental biological concepts relevant to animals, including systematics, evolution, structure and function, cellular and molecular metabolism, reproduction, development, diversity, phylogeny, and ecology.

BIOL 1414. Introduction to Biotechnology I. 4 Credit Hours.
(030) Overview of classical genetics, DNA structure, the flow of genetic information, DNA replication, gene transcription, protein translation. Principles of major molecular biology and genetic engineering techniques, including restriction enzymes and their uses, major types of cloning vectors, construction of libraries, Southern and Northern blotting, hybridization, PCR, DNA typing. Applications of these techniques in human health and welfare, medicine, agriculture and the environment. Introduction to the human genome project, gene therapy, molecular diagnostics, forensics, creation and uses of transgenic plants and animal and animal cloning and of the ethical, legal, and social issues and scientific problems associated with these technologies. Relevant practical exercises in the above areas.
BiOL 1415. Introduction to Biotechnology II. 4 Credit Hours.
(030) Biology course that focuses on an integrative approach to studying biomolecules with an emphasis on protein structures, functions and uses in the modern bioscience laboratory. Students will investigate the mechanisms involved in the transfer of information from DNA sequences to proteins by biochemical functions. The course will integrate biological and chemical concepts with techniques that are used in research and industry. Critical thinking will be applied in laboratory exercises using inquiry-based approaches, troubleshooting, and analyzing experimental data.

BiOL 2101. Anatomy & Physiology I (Lab). 1 Credit Hour.
(030) The lab provides a hands-on learning experience for exploration of human system components and basic physiology. Systems to be studied include integumentary, skeletal, muscular, nervous, and special senses.

BiOL 2102. Anatomy & Physiology II (Lab). 1 Credit Hour.
(030) The lab provides a hands-on learning experience for exploration of human system components and basic physiology. Systems to be studied include endocrine, cardiovascular, immune, lymphatic, respiratory, digestive (including nutrition), urinary (including fluid and electrolyte balance), and reproductive (including human development and genetics).

BiOL 2106. Environmental Biology (Lab). 1 Credit Hour.
(030) This laboratory-based course accompanies Biology 2306, Environmental Biology. Laboratory activities will reinforce principles of environmental systems and ecology, including biogeochemical cycles, energy transformations, abiotic interactions, symbiotic relationships, natural resources and their management, lifestyle analysis, evolutionary trends, hazards and risks, and approaches to ecological research.

BiOL 2116. Genetics (Lab). 1 Credit Hour.
(030) Study of the principles of molecular and classical genetics and the function and transmission of hereditary material. May include population genetics and genetic engineering.

BiOL 2120. Microbiology for Non-Science Majors Laboratory. 1 Credit Hour.
(030) This course covers basics of culture and identification of bacteria and microbial ecology. This course is primarily directed at pre-nursing and other pre-allied health majors and covers basics of microbiology. Emphasis is on medical microbiology, infectious diseases, and public health.

BiOL 2121. Microbiology for Science Majors Laboratory (Lab). 1 Credit Hour.
(030) This laboratory-based course accompanies Biology 2321, Microbiology for Science Majors. Laboratory activities will reinforce principles of microbiology, including metabolism, structure, function, genetics, and phylogeny of microorganisms. The course will also examine the interactions of microbes with each other, hosts, and the environment.

BiOL 2301. Anatomy & Physiology I. 3 Credit Hours.
(030) Anatomy and Physiology I is the first part of a two course sequence. It is a study of the structure and function of the human body including cells, tissues and organs of the following systems: integumentary, skeletal, muscular, nervous and special senses. Emphasis is on interrelationships among systems and regulation of physiological functions involved in maintaining homeostasis.

BiOL 2302. Anatomy & Physiology II (Lecture). 3 Credit Hours.
(030) Anatomy and Physiology II is the second part of a two-course sequence. It is a 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.

BiOL 2306. Environmental Biology (Lecture). 3 Credit Hours.
(030) Principles of environmental systems and ecology, including biogeochemical cycles, energy transformations, abiotic interactions, symbiotic relationships, natural resources and their management, lifestyle analysis, evolutionary trends, hazards and risks, and approaches to ecological research.

BiOL 2316. Genetics (Lecture). 3 Credit Hours.
(030) Study of the principles of molecular and classical genetics and the function and transmission of hereditary material. May include population genetics and genetic engineering.

BiOL 2320. Microbiology for Non-Science Majors (Lecture). 3 Credit Hours.
(030) This course covers basic microbiology and immunology and is primarily directed at pre-nursing, pre-allied health, and non-science majors. It provides an introduction to historical concepts of the nature of microorganisms, microbial diversity, the importance of microorganisms and acellular agents in the biosphere, and their roles in human and animal diseases. Major topics include bacterial structure as well as growth, physiology, genetics, and biochemistry of microorganisms. Emphasis is on medical microbiology, infectious diseases, and public health.

BiOL 2321. Microbiology for Science Majors (Lecture). 3 Credit Hours.
(030) Principles of microbiology, including metabolism, structure, function, genetics, and phylogeny of microbes. The course will also examine the interactions of microbes with each other, hosts, and the environment. Prerequisite(s): CHEM 1311 and CHEM 1111 or CHEM 1411 and BIOL 1306 and BIOL 1106 or BIOL 1406.

BiOL 2401. Anatomy and Physiology I. 4 Credit Hours.
(030) Anatomy and Physiology I is the first part of a two-course sequence. It is a study of the structure and function of the human body including cells, tissues and organs of the following systems: integumentary, skeletal, muscular, nervous and special senses. Emphasis is on interrelationships among systems and regulation of physiological functions involved in maintaining homeostasis.

BiOL 2402. Anatomy and Physiology II. 4 Credit Hours.
(030) Anatomy and Physiology II is the second part of a two-course sequence. It is a 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.

BiOL 2404. Anatomy & Physiology (specialized, single semester course, lecture + lab). 4 Credit Hours.
(030) Study of the structure and function of human anatomy, including the neuroendocrine, integumentary, musculoskeletal, digestive, urinary, reproductive, respiratory, and circulatory systems. Content may be either integrated or specialized.
BIOL 2406. Environmental Biology (Lecture + Lab). 4 Credit Hours.
(030) This lecture and lab course should combine all of the elements of BIOL 2306 (lecture) and BIOL 2106 (lab), including the learning outcomes listed for both courses.

BIOL 2416. Genetics (Lecture + Lab). 4 Credit Hours.
(030) Study of the principles of molecular and classical genetics and the function and transmission of hereditary material. May include population genetics and genetic engineering.

BIOL 2420. Microbiology for Non-Science Majors (Lecture + Lab). 4 Credit Hours.
(030) This lecture and lab course should combine all of the elements of BIOL 2320 Microbiology for Non-Science Majors (lecture) and BIOL 2120 Microbiology for Non-Science Majors Laboratory (lab), including the learning outcomes listed for both courses.

BIOL 2421. Microbiology for Science Majors. 4 Credit Hours.
(030) Principles of microbiology, including metabolism, structure, function, genetics, and phylogeny of microbes. The course will also examine the interactions of microbes with each other, hosts, and the environment.

BUSI 1301. Business Principles. 3 Credit Hours.
(080) 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 2301. Business Law. 3 Credit Hours.
The course provides the student with foundational information about the U.S. legal system and dispute resolution, and their impact on business. The major content areas will include general principles of law, the relationship of business and the U.S. Constitution, state and federal legal systems, the relationship between law and ethics, contracts, sales, torts, agency law, intellectual property, and business law in the global context.

BUSI 2305. Business Statistics. 3 Credit 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. (BUSI 2305 is included in the Business Field of Study.) Prerequisites: MATH 1324 Mathematics for Business & Social Science Majors.

CHEM 1105. Introductory Chemistry I (Lecture). 3 Credit Hours.
(030) Survey course introducing chemistry. Topics may include inorganic, organic, biochemistry, food/physiological chemistry, and environmental/consumer chemistry. Designed for non-science and allied health students.

CHEM 1107. Introductory Chemistry II (Lab). 1 Credit Hour.
(030) Survey course introducing chemistry. Topics may include inorganic, organic, biochemistry, food/physiological chemistry, and environmental/consumer chemistry. Designed for non-science and allied health students.

CHEM 1111. General Chemistry I (Lab). 1 Credit Hour.
(030) 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.

CHEM 1112. General Chemistry II (Lab). 1 Credit Hour.
(030) 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.

CHEM 1305. Introductory Chemistry I (Lecture). 3 Credit Hours.
(030) Survey course introducing chemistry. Topics may include inorganic, organic, biochemistry, food/physiological chemistry, and environmental/consumer chemistry. Designed for non-science and allied health students.

CHEM 1306. Introductory Chemistry I (Lecture - allied health emphasis). 3 Credit Hours.
(030) Survey course introducing chemistry. Topics may include inorganic, organic, biochemistry, food/physiological chemistry, and environmental/consumer chemistry. Designed for non-science and allied health students.

CHEM 1307. Introductory Chemistry II (Lecture). 3 Credit Hours.
(030) Survey course introducing chemistry. Topics may include inorganic, organic, biochemistry, food/physiological chemistry, and environmental/consumer chemistry. Designed for non-science and allied health students.

CHEM 1311. General Chemistry I (Lecture). 3 Credit Hours.
(030) 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.

CHEM 1312. General Chemistry II (Lecture). 3 Credit Hours.
(030) Chemical equilibrium; phase diagrams and spectrometry; acid-base concepts; thermodynamics, kinetics; electrochemistry; nuclear chemistry; an introduction to organic chemistry and descriptive inorganic chemistry. Prerequisite(s): CHEM 1311 and CHEM 1111 or CHEM 1411 or CHEM 1309 and CHEM 1109 or CHEM 1409.

CHEM 1405. Introductory to Chemistry (Lecture + Lab). 4 Credit Hours.
(030) Survey course introducing chemistry. Topics may include inorganic, organic, biochemistry, food/physiological chemistry, and environmental/consumer chemistry. Designed for non-science and allied health students.

CHEM 1406. Introductory Chemistry I (Lecture + Lab - allied health emphasis). 4 Credit Hours.
(030) Survey course introducing chemistry. Topics may include inorganic, organic, biochemistry, food/physiological chemistry, and environmental/consumer chemistry. Designed for non-science and allied health students.
CHEM 1407. Introductory Chemistry II (Lecture + Lab). 4 Credit Hours.
(030) Survey course introducing chemistry. Topics may include inorganic, organic, biochemistry, food/physiological chemistry, and environmental/consumer chemistry. Designed for non-science and allied health students.

CHEM 1411. General Chemistry I (Lecture + Lab). 4 Credit Hours.
(030) 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. Introduction of the scientific method, experimental design, data collection and analysis, and preparation of laboratory reports.

CHEM 1412. General Chemistry II. 4 Credit Hours.
(030) Chemical equilibrium; phase diagrams and spectrometry; acid-base concepts; thermodynamics; kinetics; electrochemistry; nuclear chemistry; an introduction to organic chemistry and descriptive inorganic chemistry; introduction of the scientific method, experimental design, chemical instrumentation, data collection and analysis, and preparation of laboratory reports.

CHEM 2123. Organic Chemistry I (Lab). 1 Credit Hour.
(030) This laboratory-based course accompanies CHEM 2323, Organic Chemistry I. Laboratory activities will reinforce fundamental principles of organic chemistry, including the structure, bonding, properties, and reactivity of organic molecules; and properties and behavior of organic compounds and their derivatives. Emphasis is placed on organic synthesis and mechanisms. Includes study of covalent and ionic bonding, nomenclature, stereochemistry, structure and reactivity, reaction mechanisms, functional groups, and synthesis of simple molecules. Methods for the purification and identification of organic compounds will be examined.

CHEM 2125. Organic Chemistry II Lab. 1 Credit Hour.
(030) This laboratory-based course accompanies CHEM 2325, Organic Chemistry II. Laboratory activities reinforce advanced principles of organic chemistry, including the structure, properties, and reactivity of aliphatic and aromatic organic molecules; and properties and behavior of organic compounds and their derivatives. Emphasis is placed on organic synthesis and mechanisms. Includes study of covalent and ionic bonding, nomenclature, stereochemistry, structure and reactivity, reaction mechanisms, functional groups, and synthesis of simple molecules.

CHEM 2323. Organic Chemistry I (Lecture). 3 Credit Hours.
(030) Fundamental principles of organic chemistry will be studied, including the structure, bonding, properties, and reactivity of organic molecules; and properties and behavior of organic compounds and their derivatives. Emphasis is placed on organic synthesis and mechanisms. Includes study of covalent and ionic bonding, nomenclature, stereochemistry, structure and reactivity, reaction mechanisms, functional groups, and synthesis of simple molecules. THIS COURSE IS INTENDED FOR STUDENTS IN SCIENCE OR PRE-PROFESSIONAL PROGRAMS.

CHEM 2325. Organic Chemistry II (Lecture). 3 Credit Hours.
(030) Advanced principles of organic chemistry will be studied, including the structure, properties, and reactivity of aliphatic and aromatic organic molecules; and properties and behavior of organic compounds and their derivatives. Emphasis is placed on organic synthesis and mechanisms. Includes study of covalent and ionic bonding, nomenclature, stereochemistry, structure and reactivity, reaction mechanisms, functional groups, and synthesis of simple molecules. THIS COURSE IS INTENDED FOR STUDENTS IN SCIENCE OR PRE-PROFESSIONAL PROGRAMS.

CHEM 2423. Organic Chemistry I (Lecture + Lab). 4 Credit Hours.
(030) This lecture and lab course should combine all of the elements of CHEM 2323 (lecture) and CHEM 2123 (lab), including the learning outcomes listed for both courses.

CHEM 2425. Organic Chemistry II (Lecture + Lab). 4 Credit Hours.
(030) This lecture and lab course should combine all of the elements of CHEM 2325 (lecture) and CHEM 2125 (lab), including the learning outcomes listed for both courses.

CHIN 1411. Beginning Chinese I. 3 Credit Hours.
(040) Fundamental skills in listening comprehension, speaking, reading, and writing. Includes basic vocabulary, grammatical structures, and culture.

CHIN 2311. Intermediate Chinese I. 3 Credit Hours.
(040) Review and application of skills in listening comprehension, speaking, reading, and writing. Emphasizes conversation, vocabulary acquisition, reading, composition, and culture.

CHIN 2312. Intermediate Chinese II. 3 Credit Hours.
(040) Review and application of skills in listening comprehension, speaking, reading, and writing. Emphasizes conversation, vocabulary acquisition, reading, composition, and culture.

COMM 1307. Introduction to Mass Communication. 3 Credit Hours.
(010) (040) (050) (080) Survey of basic content and structural elements of mass media and their functions and influences on society.

COMM 1335. Introduction to Electronic Media. 3 Credit Hours.
(040) (050) (080) An overview of the development, regulation, economics, social impact, and industry practices in electronic media.

COMM 2300. Media Literacy. 3 Credit Hours.
(040) (050) Criticism and analysis of the function, role, and responsibility of the mass media in modern society from the consumer perspective. Includes the ethical problems and issues facing each media format, with the effect of political, economic, and cultural factors on the operation of the media.

COMM 2366. Introduction to Cinema. 3 Credit Hours.
(040) (050) Survey and analyze cinema including history, film techniques, production procedures, selected motion pictures, and cinema’s impact on and reflection of society. (Cross- listed as DRAM 2366).

COSC 1301. Introduction to Computing. 3 Credit Hours.
Overview of computer systems—hardware, operating systems, the Internet, and application software including word processing, spreadsheets, presentation graphics, and databases. Current topics such as the effect of computers on society, and the history and use of computers in business, educational, and other interdisciplinary settings are also studied. This course is not intended to count toward a student’s major field of study in business or computer science.
COSC 1309. Programming Logic & Design. 3 Credit Hours.
A discipline approach to problem-solving with structured techniques and representation of algorithms using pseudo code and graphical tools. Discussion of methods for testing, evaluation, and documentation.

COSC 1315. Fundamentals of Programming. 3 Credit Hours.
Introduction to computer programming for solving a variety of problems. This course is intended for non-computer science and non-computer engineering majors. Emphasis on the fundamentals of design, development, testing, implementation, and documentation of computer programs. Includes problem solving with structured techniques and algorithms using pseudo code and/or graphical representations.

COSC 1320. C Programming I. 3 Credit Hours.
Introduces the fundamental concepts of structured programming in the C language. Topics include data types; control structures; functions; structures, arrays, pointers, pointer arithmetic, unions, and files; the mechanics of running, testing, and debugging programs; introduction to programming; and introduction to the historical and social context of computing.

COSC 1336. Programming Fundamentals I. 3 Credit 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.

COSC 1337. Programming Fundamentals II. 3 Credit Hours.
This course focuses on the object-oriented programming paradigm, emphasizing the definition and use of classes along with fundamentals of object-oriented design. The course includes basic analysis of algorithms, searching and sorting techniques, and an introduction to software engineering processes. Students will apply techniques for testing and debugging software.

COSC 1436. Programming Fundamentals. 4 Credit 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. (This course is included in the Field of Study Curriculum for Computer Science.)

COSC 1437. Programming Fundamentals II. 4 Credit Hours.
This course focuses on the object-oriented programming paradigm, emphasizing the definition and use of classes along with fundamentals of object-oriented design. The course includes basic analysis of algorithms, searching and sorting techniques, and an introduction to software engineering processes. Students will apply techniques for testing and debugging software. (This course is included in the Field of Study Curriculum for Computer Science.)

COSC 2425. Computer Organization. 4 Credit Hours.
The organization of computer systems is introduced using assembly language. Topics include basic concepts of computer architecture and organization, memory hierarchy, data types, computer arithmetic, control structures, interrupt handling, instruction sets, performance metrics, and the mechanics of testing and debugging computer systems. Embedded systems and device interfacing are introduced. Prerequisite(s): COSC 1336 or COSC 1436.

CRIJ 1301. Introduction to Criminal Justice. 3 Credit Hours.
(080) This course provides a historical and philosophical overview of the American criminal justice system, including the nature, extent, and impact of crime; criminal law; and justice agencies and processes.

CRIJ 1306. Court Systems & Practices. 3 Credit Hours.
(080) This course is a study of the court system as it applies to the structures, procedures, practices and sources of law in American courts, using federal and Texas statutes and case law.

CRIJ 1307. Crime in America. 3 Credit Hours.
(080) American crime problems in historical perspective, social and public policy factors affecting crime, impact and crime trends, social characteristics of specific crimes, and prevention of crime.

CRIJ 1310. Fundamentals of Criminal Law. 3 Credit Hours.
(080) This course is the study of criminal law including application of definitions, statutory elements, defenses and penalties using Texas statutes, the Model Penal Code, and case law. The course also analyzes the philosophical and historical development of criminal law and criminal culpability.

CRIJ 2313. Correctional Systems & Practices. 3 Credit Hours.
(080) This course is a survey of institutional and non-institutional corrections. Emphasis will be placed on the organization and operation of correctional systems; treatment and rehabilitation; populations served; Constitutional issues; and current and future issues.

CRIJ 2314. Criminal Investigation. 3 Credit Hours.
Investigative theory; collection and preservation of evidence; sources of information; interview and interrogation; uses of forensic sciences; case and trial preparation.

CRIJ 2328. Police Systems & Practices. 3 Credit Hours.
(080) This course examines the establishment, role and function of police in a democratic society. It will focus on types of police agencies and their organizational structure, police-community interaction, police ethics, and use of authority.

DANC 1305. World Dance. 3 Credit Hours.
(040) (050) A survey of dances from different cultures, their histories, and their influences on contemporary dance and society. Cultural origins, significance, motivations and techniques will be explored experientially.

DANC 2303. Dance Appreciation. 3 Credit Hours.
(050) A general survey of dance forms designed to create an appreciation of the vocabulary, techniques, and purposes of the creative process. This course includes critical interpretation and evaluations of choreographic works and dance forms within cultural and historical contexts.
EDUC 1100. Learning Frameworks. 1 Credit Hour.
A study of the: research and theory in the psychology of learning, cognition, and motivation; factors that impact learning, and application of learning strategies. Theoretical models of strategic learning, cognition, and motivation serve as the conceptual basis for the introduction of college-level student academic strategies. Students use assessment instruments (e.g., learning inventories) to help them identify their own strengths and weaknesses as strategic learners. Students are ultimately expected to integrate and apply the learning skills discussed across their own academic programs and become effective and efficient learners. Students developing these skills should be able to continually draw from the theoretical models they have learned. (Cross-listed as PSYC 1300).

EDUC 1200. Learning Frameworks. 2 Credit Hours.
A study of the: research and theory in the psychology of learning, cognition, and motivation; factors that impact learning, and application of learning strategies. Theoretical models of strategic learning, cognition, and motivation serve as the conceptual basis for the introduction of college-level student academic strategies. Students use assessment instruments (e.g., learning inventories) to help them identify their own strengths and weaknesses as strategic learners. Students are ultimately expected to integrate and apply the learning skills discussed across their own academic programs and become effective and efficient learners. Students developing these skills should be able to continually draw from the theoretical models they have learned. (Cross-listed as PSYC 1300).

EDUC 1300. Learning Frameworks. 3 Credit Hours.
A study of: research and theory in the psychology of learning, cognition, and motivation; factors that impact learning, and application of learning strategies. Theoretical models of strategic learning, cognition, and motivation serve as the conceptual basis for the introduction of college-level student academic strategies. Students use assessment instruments (e.g., learning inventories) to help them identify their own strengths and weaknesses as strategic learners. Students are ultimately expected to integrate and apply the learning skills discussed across their own academic programs and become effective and efficient learners. Students developing these skills should be able to continually draw from the theoretical models they have learned. (Cross-listed as PSYC 1300).
ENGL 2321. British Literature (single-semester course). 3 Credit Hours. (040) (050) 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 diverse group of authors and traditions.

ENGL 2322. British Literature I. 3 Credit Hours. (040) A survey of the development of British literature from the Anglo-Saxon period to the Eighteenth Century. 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 diverse group of authors and traditions. Prerequisite(s): ENGL 1301.

ENGL 2323. British Literature II. 3 Credit Hours. (040) A survey of the development of British literature from the Romantic period 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 diverse group of authors for what they reflect and reveal about the evolving American experience and character.

ENGL 2324. American Literature (single-semester course). 3 Credit Hours. (040) 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 diverse group of authors and traditions. Prerequisite(s): ENGL 1301.

ENGL 2325. American Literature I. 3 Credit Hours. (040) A survey of American literature from the period of exploration and settlement through the Civil War. 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 diverse group of authors for what they reflect and reveal about the evolving American experience and character. Prerequisite(s): ENGL 1301.

ENGL 2326. American Literature II. 3 Credit Hours. (040) A survey of American literature from the Civil War 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 diverse group of authors for what they reflect and reveal about the evolving American experience and character. Prerequisite(s): ENGL 1301.

ENGL 2327. American Literature III. 3 Credit Hours. (040) A survey of American literature from the Civil War 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 diverse group of authors for what they reflect and reveal about the evolving American experience and character. Prerequisite(s): ENGL 1301.

ENGL 2328. American Literature IV. 3 Credit Hours. (040) A survey of American literature from the period 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 diverse group of authors for what they reflect and reveal about the evolving American experience and character.

ENGL 2331. World Literature (single-semester course). 3 Credit Hours. (040) A survey of world literature from the ancient world 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 a diverse group of authors and traditions. Prerequisite(s): ENGL 1301.

ENGR 2301. Engineering Mechanics I - Statics. 3 Credit Hours. Basic theory of engineering mechanics, using calculus, involving the description of forces, moments, and couples acting on stationary structures; equilibrium in two and three dimensions; free-body diagrams; friction; centroids; centers of gravity; and moments of inertia.

ENGR 2302. Engineering Mechanics II - Dynamics. 3 Credit Hours. Basic theory of engineering mechanics, using calculus, involving the motion of particles, rigid bodies, and systems of particles; Newton's Laws; work and energy relationships; principles of impulse and momentum; application of kinetics and kinematics to the solution of engineering problems.

ENGR 2303. Engineering Mechanics III. 3 Credit Hours. Introduction to computer-aided drafting using CAD software and sketching to generate two- and three-dimensional drawings based on the conventions of engineering graphical communication; topics include spatial relationships, multi-view projections and sectioning, dimensioning, graphical presentation of data, and fundamentals of computer graphics. Prerequisite(s): MATH 1314 or MATH 1414 or equivalent academic preparation.

ENGR 2304. Programming for Engineers. 3 Credit 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.

ENGR 2305. Electrical Circuits I (Lecture). 3 Credit Hours. Principles of electrical circuits and systems. Basic circuit elements (resistance, inductance, mutual inductance, capacitance, independent and dependent controlled voltage, and current sources). Topology of electrical networks; Kirchhoff's laws; node and mesh analysis; DC circuit analysis; operational amplifiers; transient and sinusoidal steady-state analysis; AC circuit analysis; first- and second-order circuits, Bode plots; and use of computer simulation software to solve circuit problems.

ENGR 2306. Engineering Economics. 3 Credit Hours. (080) Methods used for determining the comparative financial desirability of engineering alternatives. Provides the student with the basic tools required to analyze engineering alternatives in terms of their worth and cost, an essential element of engineering practice. The student is introduced to the concept of the time value of money and the methodology of basic engineering economy techniques. The course will address some aspects of sustainability and will provide the student with the background to enable them to pass the Engineering Economy portion of the Fundamentals of Engineering exam. Prerequisite(s): MATH 2413.
ENGR 2332. Mechanics of Materials. 3 Credit Hours.
Stresses, deformations, stress-strain relationships, torsions, beams, shafts, columns, elastic deflections in beams, combined loading, and combined stresses.

ENGR 2405. Electrical Circuits I (Lecture + Lab). 4 Credit Hours.
Laboratory experiments supporting theoretical principles presented in ENGR 2305 involving DC and AC circuit theory, network theorems, time, and frequency domain circuit analysis. Introduction to principles and operation of basic laboratory equipment; laboratory report preparation. Principles of electrical circuits and systems. Basic circuit elements (resistance, inductance, mutual inductance, capacitance, independent and dependent controlled voltage, and current sources). Topology of electrical networks; Kirchhoff’s laws; node and mesh analysis; DC circuit analysis; operational amplifiers; transient and sinusoidal steady-state analysis; AC circuit analysis; first- and second-order circuits; Bode plots; and use of computer simulation software to solve circuit problems. Prerequisite(s): PHYS 2326 and PHYS 2126 or PHYS 2426; MATH 2414.

ENGT 2307. Engineering Materials I. 3 Credit Hours.
Instruction in the making and forming of steel and the classification of steel, cast iron, and aluminum. Topics include mechanical and physical properties, non-destructive testing principles of alloying, selection of metals, iron carbon diagrams, principles of hardening and tempering steel, and the metallurgical aspects of machining. Topics will also include an overview of properties and uses of polymers and ceramics. (This course is included in the Field of Study Curriculum for Engineering Technology).

ENGT 2310. Introduction to Manufacturing Processes. 3 Credit Hours.
Exploration of a variety of methods used in manufacturing. Theory and application of processes including but not limited to metal forming, welding, machining, heat-treating, plating, assembly procedures, process controls considerations, casting and injection molding. (This course is included in the Field of Study Curriculum for Engineering Technology).

ENVR 1101. Environmental Science I (Lab). 1 Credit Hour.
(030) This laboratory based course accompanies ENVR 1301, Environmental Science (lecture). Activities will cover methods used to collect and analyze environmental data. (Cross-listed as GEOL 1105 Environmental Science).

ENVR 1102. Environmental Science II (Lab). 1 Credit Hour.
(030) General interest course requiring a minimum of previous science background and relating scientific knowledge to problems involving energy and the environment. May or may not include a laboratory.

ENVR 1301. Environmental Science I (Lecture). 3 Credit Hours.
(030) A survey of the forces, including humans, that shape our physical and biologic environment, and how they affect life on Earth. Introduction to the science and policy of global and regional environmental issues, including pollution, climate change, and sustainability of land, water, and energy resources. (Cross-listed as GEOL 1305 Environmental Science).

ENVR 1302. Environmental Science II (Lecture). 3 Credit Hours.
(030) General interest course requiring a minimum of previous science background and relating scientific knowledge to problems involving energy and the environment. May or may not include a laboratory.

ENVR 1401. Environmental Science I (Lecture + Lab). 4 Credit Hours.
(030) This lecture and lab course should combine all of the elements of ENVR 1301 Environmental Science (lecture) and ENVR 1101 Environmental Science (lab), including the learning outcomes listed for both courses. (Cross-listed as GEOL 1405 Environmental Science).

ENVR 1402. Environmental Science II (Lecture + Lab). 4 Credit Hours.
(030) General interest course requiring a minimum of previous science background and relating scientific knowledge to problems involving energy and the environment. May or may not include a laboratory.

FREN 1311. Beginning French I. 3 Credit Hours.
Fundamental skills in listening comprehension, speaking, reading, and writing. Includes basic vocabulary, grammatical structures, and culture.

FREN 1312. Beginning French II. 3 Credit Hours.
Fundamental skills in listening comprehension, speaking, reading, and writing. Includes basic vocabulary, grammatical structures, and culture.

FREN 1311. Beginning French I. 4 Credit Hours.
(040) Fundamental skills in listening comprehension, speaking, reading, and writing. Includes basic vocabulary, grammatical structures, and culture.

FREN 1312. Beginning French II. 3 Credit Hours.
(040) Fundamental skills in listening comprehension, speaking, reading, and writing. Includes basic vocabulary, grammatical structures, and culture.

FREN 1311. Beginning French I. 4 Credit Hours.
(040) Review and application of skills in listening comprehension, speaking, reading, and writing. Emphasizes conversation, vocabulary acquisition, reading, composition, and culture.

FREN 1312. Beginning French II. 3 Credit Hours.
(040) Review and application of skills in listening comprehension, speaking, reading, and writing. Emphasizes conversation, vocabulary acquisition, reading, composition, and culture.

GEOG 1301. Physical Geography. 3 Credit Hours.
(030) (080) 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 1302. Human Geography. 3 Credit Hours.
(030) (040) This course introduces students to fundamental concepts, skills, and practices of human geography. Place, space, and scale serve as a framework for understanding patterns of human experience. Topics for discussion may include globalization, population and migration, culture, diffusion, political and economic systems, language, religion, gender, and ethnicity.

GEOG 1303. World Regional Geography. 3 Credit Hours.
(030) (040) (080) This course is an introduction to the world’s major regions seen through their defining physical, social, cultural, political, and economic features. These regions are examined in terms of their physical and human characteristics and their interactions. The course emphasizes relations among regions on issues such as trade, economic development, conflict, and the role of regions in the globalization process.

GEOL 1101. Earth Science for Non-Science Majors I (Lab). 1 Credit Hour.
(030) This laboratory-based course accompanies GEOL 1301, Earth Sciences I. Activities will cover methods used to collect and analyze data in geology, meteorology, oceanography, and astronomy.

GEOL 1102. Earth Sciences for Non-Science Majors II (Lab). 1 Credit Hour.
(030) This laboratory-based course accompanies GEOL 1302, Earth Sciences II. Activities will focus on methods used to collect and analyze data related to natural resources, hazards and climate variability.
GEOL 1103. Physical Geology (Lab). 1 Credit Hour.
(030) This laboratory-based course accompanies GEOL 1303, Physical Geology. Laboratory activities will cover methods used to collect and analyze earth science data.

GEOL 1104. Historical Geology (Lab). 1 Credit Hour.
(030) This laboratory-based course accompanies GEOL 1304, Historical Geology. Laboratory activities will introduce methods used by scientists to interpret the history of life and major events in the physical development of Earth from rocks and fossils.

GEOL 1105. Environmental Science I (Lab). 1 Credit Hour.
(030) This laboratory based course accompanies GEOL 1305, Environmental Science (lecture). Activities will cover methods used to collect and analyze environmental data. (Cross-listed with ENVR 1101).

GEOL 1145. Oceanography (Lab). 1 Credit Hour.
(030) Survey of oceanography and related sciences.

GEOL 1147. Meteorology (Lab). 1 Credit Hour.
(030) Survey of meteorology and related sciences.

GEOL 1301. Earth Science for Non-Science Majors I (Lecture). 3 Credit Hours.
(030) Survey of geology, meteorology, oceanography, and astronomy.

GEOL 1302. Earth Science for Non-Science Majors II (Lecture). 3 Credit Hours.
(030) Extension of the study of geology, astronomy, meteorology and oceanography, focusing on natural resources, hazards and climate variability.

GEOL 1303. Physical Geology (Lecture). 3 Credit Hours.
(030) Introduction to the study of the materials and processes that have modified and shaped the surface and interior of Earth over time. These processes are described by theories based on experimental data and geologic data gathered from field observations.

GEOL 1304. Historical Geology (Lecture). 3 Credit Hours.
(030) A comprehensive survey of the history of life and major events in the physical development of Earth as interpreted from rocks and fossils.

GEOL 1305. Environmental Science (Lecture). 3 Credit Hours.
(030) A survey of the forces, including humans, that shape our physical and biologic environment, and how they affect life on Earth. Introduction to the science and policy of global and regional environmental issues, including pollution, climate change, and sustainability of land, water, and energy resources. (Cross-listed with ENVR 1301).

GEOL 1345. Oceanography (Lecture). 3 Credit Hours.
(030) Survey of oceanography and related sciences.

GEOL 1347. Meteorology (Lecture). 3 Credit Hours.
(030) Survey of meteorology and related sciences.

GEOL 1403. Physical Geology (Lecture + Lab). 4 Credit Hours.
(030) This lecture and lab course should combine all of the elements of GEOL 1303 Physical Geology (lecture) and GEOL 1103 Physical Geology (lab), including the learning outcomes listed for both courses.

GEOL 1404. Historical Geology (Lecture + Lab). 4 Credit Hours.
(030) This lecture and lab course should combine all of the elements of GEOL 1304 Historical Geology (lecture) and GEOL 1104 Historical Geology (lab), including the learning outcomes listed for both courses.

GEOL 1405. Environmental Science I (Lecture + Lab). 4 Credit Hours.
(030) This lecture and lab course should combine all of the elements of GEOL 1305 Environmental Science (lecture) and GEOL 1105 Environmental Science (lab), including the learning outcomes listed for both courses. (Cross-listed with ENVR 1401).

GEOL 1445. Oceanography (Lecture + Lab). 4 Credit Hours.
(030) Survey of oceanography and related sciences.

GEOL 1447. Meteorology (Lecture + Lab). 4 Credit Hours.
(030) Survey of meteorology and related sciences.

GERM 1311. Beginning German I. 3 Credit Hours.
Fundamental skills in listening comprehension, speaking, reading, and writing. Includes basic vocabulary, grammatical structures, and culture.

GERM 1312. Beginning German II. 3 Credit Hours.
Fundamental skills in listening comprehension, speaking, reading, and writing. Includes basic vocabulary, grammatical structures, and culture.

GERM 1411. Beginning German I. 4 Credit Hours.
(040) Fundamental skills in listening comprehension, speaking, reading, and writing. Includes basic vocabulary, grammatical structures, and culture.

GERM 1412. Beginning German II. 4 Credit Hours.
(040) Fundamental skills in listening comprehension, speaking, reading, and writing. Includes basic vocabulary, grammatical structures, and culture.

GERM 2311. Intermediate German I. 3 Credit Hours.
(040) Review and application of skills in listening comprehension, speaking, reading, and writing. Emphasizes conversation, vocabulary acquisition, reading, composition, and culture.

GERM 2312. Intermediate German II. 3 Credit Hours.
(040) Review and application of skills in listening comprehension, speaking, reading, and writing. Emphasizes conversation, vocabulary acquisition, reading, composition, and culture.

GOVT 2304. Introduction to Political Science. 3 Credit Hours.
(080) Introductory survey of the discipline of political science focusing on the scope, and methods of the field, and the substantive topics in the discipline including the theoretical foundations of politics, political interaction, political institutions and how political systems function.

GOVT 2305. Federal Government. 3 Credit Hours.
(070) 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. 3 Credit Hours.
(070) 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.
GOVT 2311. Mexican American and Latinx Politics. 3 Credit Hours.
(080) The study of Mexican American and Latinx politics within the American political experience. Topics include historical, cultural, socioeconomic, and constitutional issues that pertain to the study of Mexican Americans and other Latinx populations in the United States. Other topics such as political participation, governmental institutions, electoral politics, political representation, demographic trends, and other contemporary public policy debates will also be addressed.

HECO 1322. Nutrition & Diet Therapy. 3 Credit Hours.
This course introduces general nutritional concepts in health and disease and includes practical applications of that knowledge. Special emphasis is given to nutrients and nutritional processes including functions, food sources, digestion, absorption, and metabolism. Food safety, availability, and nutritional information including food labels, advertising, and nationally established guidelines are addressed. (Cross-listed as BIOL 1322).

HIST 1301. United States History I. 3 Credit Hours.
(060) A survey of the social, political, economic, cultural, and intellectual history of the United States from the pre-Columbian era to the Civil War/Reconstruction period. United States History I includes the study of pre-Columbian, colonial, revolutionary, early national, slavery and sectionalism, and the Civil War/Reconstruction eras. Themes that may be addressed in United States History I include: American settlement and diversity, American culture, religion, civil and human rights, technological change, economic change, immigration and migration, and creation of the federal government.

HIST 1302. United States History II. 3 Credit Hours.
(060) A survey of the social, political, economic, cultural, and intellectual history of the United States from the Civil War/Reconstruction era to the present. United States History II examines industrialization, immigration, world wars, the Great Depression, Cold War and post-Cold War eras. Themes that may be addressed in United States History II include: American culture, religion, civil and human rights, technological change, economic change, immigration and migration, urbanization and suburbanization, the expansion of the federal government, and the study of U.S. foreign policy.

HIST 2301. Texas History. 3 Credit Hours.
(060) (080) A survey of the political, social, economic, cultural, and intellectual history of Texas from the pre-Columbian era to the present. Themes that may be addressed in Texas History include: Spanish colonization and Spanish Texas; Mexican Texas; the Republic of Texas; statehood and secession; oil, industrialization, and urbanization; civil rights; and modern Texas.

HIST 2311. Western Civilization I. 3 Credit Hours.
(040) (080) A survey of the social, political, economic, cultural, religious, and intellectual history of Europe and the Mediterranean world from human origins to the 17th century. Themes that should be addressed in Western Civilization I include the cultural legacies of Mesopotamia, Egypt, Greece, Rome, Byzantium, Islamic civilizations, and Europe through the Middle Ages, Renaissance, and Reformation.

HIST 2312. Western Civilization II. 3 Credit Hours.
(040) (080) A survey of the social, political, economic, cultural, religious, and intellectual history of Europe and the Mediterranean world from the 17th century to the modern era. Themes that should be addressed in Western Civilization II include absolutism and constitutionalism, growth of nation states, the Enlightenment, revolutions, classical liberalism, industrialization, imperialism, global conflict, the Cold War, and globalization.

HIST 2321. World Civilizations I. 3 Credit Hours.
(040) (080) A survey of the social, political, economic, cultural, religious, and intellectual history of the world from the emergence of human cultures through the 15th century. The course examines major cultural regions of the world in Africa, the Americas, Asia, Europe, and Oceania and their global interactions over time. Themes include the emergence of early societies, the rise of civilizations, the development of political and legal systems, religion and philosophy, economic systems and trans-regional networks of exchange. The course emphasizes the development, interaction and impact of global exchange.

HIST 2322. World Civilizations II. 3 Credit Hours.
(040) (080) A survey of the social, political, economic, cultural, religious, and intellectual history of the world from the 15th century to the present. The course examines major cultural regions of the world in Africa, the Americas, Asia, Europe, and Oceania and their global interactions over time. Themes include maritime exploration and transoceanic empires, nation/state formation and industrialization, imperialism, global conflicts and resolutions, and global economic integration. The course emphasizes the development, interaction and impact of global exchange.

HIST 2327. Mexican American History I. 3 Credit Hours.
(060) (080) A survey of the economic, social, political, intellectual, and cultural history of Mexican Americans/Chicano/a. Periods include early indigenous societies, conflict and conquest, early European colonization and empires, New Spain, early revolutionary period, Mexican independence and nation building, United States expansion to the United States-Mexico War Era. Themes to be addressed are mestizaje and racial formation in the early empire, rise and fall of native and African slavery, relationship to early global economies, development of New Spain’s/Mexico’s northern frontier, gender and power, missions, resistance and rebellion, emergence of Mexican identities, California mission secularization, Texas independence, United States’ wars with Mexico, and the making of borders and borderlands. (May be applied to U.S. History requirement.)

HIST 2328. Mexican American History II. 3 Credit Hours.
(060) A survey of the economic, social, political, intellectual, and cultural history of Mexican Americans/Chicano/a. Periods include the United States-Mexico War Era, incorporation of Northern Mexico into the United States, Porfirián Mexico, and the nineteenth century American West, 1910 Mexican Revolution and Progressive Era, the Great Depression and New Deal, World War II and the Cold War, Civil Rights Era, Conservative Ascendancy, the age of NAFTA and turn of the 21st Century developments. Themes to be addressed are the making of borders and borderlands, impact of Treaty of Guadalupe Hidalgo, gender and power, migration and national identities, citizenship and expulsion, nineteenth century activism and displacement, industrialization and the making of a transnational Mexican working class, urbanization and community formation, emergence of a Mexican American Generation, war and citizenship, organized advocacy and activism, Chicano Movement, changing identifications and identities, trade and terrorism. (May be applied to U.S. History requirement.)

HIST 2381. African-American History. 3 Credit Hours.
(060) (080) Historical, economic, social, and cultural development of minority groups. May include African-American, Mexican American, Asian American, and Native American issues.
Horticulture Laboratory. 1 Credit Hour.
(030) This laboratory-based course accompanies HORT 1301. Laboratory activities will reinforce the structure, growth, and development of horticultural plants. Examination of environmental effects, basic principles of reproduction, production methods ranging from outdoor to controlled climates, nutrition, and pest management. (Cross-listed as AGRI 1115).

Horticulture (Lecture). 3 Credit Hours.
(030) Structure, growth, and development of horticultural plants. Examination of environmental effects, basic principles of reproduction, production methods ranging from outdoor to controlled climates, nutrition, and pest management. (Cross-listed as AGRI 1315).

Horticulture (Lecture + Lab). 4 Credit Hours.
(030) This lecture and lab course should combine all of the elements of HORT 1301 Horticulture (lecture) and HORT 1101 Horticulture (lab), including the learning outcomes listed for both courses. (Cross-listed as AGRI 1415).

Introduction to Humanities I. 3 Credit Hours.
(040) (050) This stand-alone course is an interdisciplinary survey of cultures focusing on the philosophical and aesthetic factors in human values with an emphasis on the historical development of the individual and society and the need to create.

Introduction to Humanities II. 3 Credit Hours.
(040) (050) This stand-alone course is an interdisciplinary survey of cultures focusing on the philosophical and aesthetic factors in human values with an emphasis on the historical development of the individual and society and the need to create.

Introduction to Mexican American Studies. 3 Credit Hours.
(040) (050) This interdisciplinary survey examines the different cultural, artistic, economic, historical, political, and social aspects of the Mexican American/Chicano/a communities. It also covers issues such as dispossession, immigration, transnationalism, and other topics that have shaped the Mexican American experience.

Mexican American Fine Arts Appreciation. 3 Credit Hours.
(040) (050) This course is an exploration of the purposes and processes in the visual and performing arts (such as music, painting, drama, and dance) and the ways in which they express the values of the Mexican-American/Chicano/a experience.

Fine Arts Appreciation. 3 Credit Hours.
(040) (050) This course is an exploration of the purposes and processes in the visual and performing arts (such as music, painting, architecture, drama, and dance) and the ways in which they express the values of cultures and human experience.

American Minority Studies. 3 Credit Hours.
(040) This interdisciplinary survey examines the diverse cultural, artistic, economic, historical, political, and social aspects of American minority communities. Topics may include race/ethnicity, gender, socioeconomic class, sexual orientation, national origin, age, disability, and religion.

World Cultures. 3 Credit Hours.
(040) (050) This course is a general study of diverse world cultures. Topics include cultural practices, social structures, religions, arts, and languages.

Intermediate Italian I. 3 Credit Hours.
(040) Review and application of skills in listening comprehension, speaking, reading, and writing. Emphasizes conversation, vocabulary acquisition, reading, composition, and culture.

Intermediate Italian II. 3 Credit Hours.
(040) Review and application of skills in listening comprehension, speaking, reading, and writing. Emphasizes conversation, vocabulary acquisition, reading, composition, and culture.

Intermediate Korean I. 3 Credit Hours.
(040) Review and application of skills in listening comprehension, speaking, reading, and writing. Emphasizes conversation, vocabulary acquisition, reading, composition, and culture.

Intermediate Korean II. 3 Credit Hours.
(040) Review and application of skills in listening comprehension, speaking, reading, and writing. Emphasizes conversation, vocabulary acquisition, reading, composition, and culture.

Intermediate Japanese I. 3 Credit Hours.
(040) Review and application of skills in listening comprehension, speaking, reading, and writing. Emphasizes conversation, vocabulary acquisition, reading, composition, and culture.

Intermediate Japanese II. 3 Credit Hours.
(040) Review and application of skills in listening comprehension, speaking, reading, and writing. Emphasizes conversation, vocabulary acquisition, reading, composition, and culture.

Introduction to Humanities II. 3 Credit Hours.
(040) (050) This stand-alone course is an interdisciplinary survey of cultures focusing on the philosophical and aesthetic factors in human values with an emphasis on the historical development of the individual and society and the need to create.

Foreign Language I. 3 Credit Hours.
These courses are intended to serve as generic foreign language credits for students in the International Baccalaureate Diploma program. They are for transcripting purposes only, and may not be submitted for state reimbursement.

Foreign Language II. 3 Credit Hours.
These courses are intended to serve as generic foreign language credits for students in the International Baccalaureate Diploma program. They are for transcripting purposes only, and may not be submitted for state reimbursement.

Foreign Language I. 4 Credit Hours.
Fundamental skills in listening comprehension, speaking, reading, and writing. Includes basic vocabulary, grammatical structures, and culture.

Foreign Language II. 4 Credit Hours.
Fundamental skills in listening comprehension, speaking, reading, and writing. Includes basic vocabulary, grammatical structures, and culture.

Intermediate Language I. 3 Credit Hours.
Review and application of skills in listening comprehension, speaking, reading, and writing. Emphasizes conversation, vocabulary acquisition, reading, composition, and culture. (This course does not meet the ACGM for core coursework, use specific foreign language coursework).
LANG 2312. Intermediate Language II. 3 Credit Hours.
Review and application of skills in listening comprehension, speaking, reading, and writing. Emphasizes conversation, vocabulary acquisition, reading, composition, and culture. (This course does not meet the ACGM for core coursework, use specific foreign language coursework).

LATI 1411. Beginning Latin I. 4 Credit Hours.
(040) Grammar and vocabulary. Emphasis on the value of Latin as a background for the study of English and modern foreign languages.

LATI 2311. Intermediate Latin I. 3 Credit Hours.
(040) Review of grammar and readings in Roman literary works.

LATI 2312. Intermediate Latin II. 3 Credit Hours.
(040) Review of grammar and readings in Roman literary works.

MATH 1314. College Algebra. 3 Credit Hours.
(020) In-depth study and applications of polynomial, rational, radical, exponential and logarithmic functions, and systems of equations using matrices. Additional topics such as sequences, series, probability, and conics may be included.

MATH 1316. Plane Trigonometry. 3 Credit Hours.
(020) 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.

MATH 1324. Mathematics for Business & Social Sciences. 3 Credit Hours.
(020) The application of common algebraic functions, including polynomial, exponential, logarithmic, and rational, to problems in business, economics, and the social sciences are addressed. 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.

MATH 1326. College Algebra. 3 Credit Hours.
(020) In-depth study and applications of polynomial, rational, radical, exponential and logarithmic functions, and systems of equations using matrices. Additional topics such as sequences, series, probability, and conics may be included.

MATH 1350. Mathematics for Teachers I. 3 Credit Hours.
(020) This course is intended to build or reinforce a foundation in fundamental mathematics concepts and skills. It includes the conceptual development of the following: sets, functions, number systems, number theory, and properties of the various number systems with an emphasis on problem solving and critical thinking.

MATH 1351. Mathematics for Teachers II. 3 Credit Hours.
(020) This course is intended to build or reinforce a foundation in fundamental mathematics concepts and skills. It includes the concepts of geometry, measurement, probability, and statistics with an emphasis on problem solving and critical thinking.

MATH 1414. College Algebra. 4 Credit Hours.
(020) In-depth study and applications of polynomial, rational, radical, exponential and logarithmic functions, and systems of equations using matrices. Additional topics such as sequences, series, probability, and conics may be included.

MATH 1442. Elementary Statistical Methods. 4 Credit Hours.
(020) Collection, analysis, presentation and interpretation of data, and probability. Analysis includes descriptive statistics, correlation and regression, confidence intervals and hypothesis testing. Use of appropriate technology is recommended.

MATH 2305. Discrete Mathematics. 3 Credit Hours.
(020) A course designed to prepare math, computer science, and engineering majors for a background in abstraction, notation, and critical thinking for the mathematics most directly related to computer science. Topics include: logic, relations, functions, basic set theory, countability and counting arguments, proof techniques, mathematical induction, combinatorics, discrete probability, recursion, sequence and recurrence, elementary number theory, graph theory, and mathematical proof techniques.

MATH 2312. Pre-Calculus Math. 3 Credit Hours.
(020) In-depth combined study of algebra, trigonometry, and other topics for calculus readiness.

MATH 2313. Calculus I. 3 Credit Hours.
(020) 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 hain 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.

MATH 2314. Calculus II. 3 Credit Hours.
(020) Differentiation and integration of transcendental functions; parametric equations and polar coordinates; techniques of integration; sequences and series; improper integrals.

MATH 2315. Calculus III (3 credit hour version). 3 Credit Hours.
(020) Advanced topics in calculus, including vectors and vector-valued functions, partial differentiation, Lagrange multipliers, multiple integrals, and Jacobians; application of the line integral, including Green's Theorem, the Divergence Theorem, and Stokes' Theorem. Prerequisite(s): MATH 2414.

MATH 2318. Linear Algebra (3 credit hour version. 3 Credit Hours.
(020) 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; quadratic forms; eigenvalues and eigenvector; and applications in science and engineering. Prerequisite(s): MATH 2414.

MATH 2320. Differential Equations. 3 Credit Hours.
(020) Ordinary differential equations, including linear equations, systems of equations, equations with variable coefficients, existence and uniqueness of solutions, series solutions, singular points, transform methods, and boundary value problems; application of differential equations to real-world problems.
MATH 2412. Pre-Calculus Math. 4 Credit Hours.
(020) In-depth combined study of algebra, trigonometry, and other topics for calculus readiness.

MATH 2413. Calculus I. 4 Credit Hours.
(020) Limits and continuity; the Fundamental Theorem of Calculus; definition of the derivative 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.

MATH 2414. Calculus II. 4 Credit Hours.
(020) Differentiation and integration of transcendental functions; parametric equations and polar coordinates; techniques of integration; sequences and series; improper integrals.

MATH 2415. Calculus III. 4 Credit Hours.
(020) Advanced topics in calculus, including vectors and vector-valued functions, partial differentiation, Lagrange multipliers, multiple integrals, and Jacobians; application of the line integral, including Green's Theorem, the Divergence Theorem, and Stokes' Theorem.

MATH 2418. Linear Algebra (4 credit hour version). 4 Credit Hours.
(020) 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; quadratic forms; eigenvalues and eigenvector; and applications in science and engineering. Prerequisite(s): MATH 2414.

MATH 2420. Differential Equations (4 credit hour version). 4 Credit Hours.
(020) Ordinary differential equations, including linear equations, systems of equations, equations with variable coefficients, existence and uniqueness of solutions, series solutions, singular points, transform methods, and boundary value problems; application of differential equations to real-world problems. Prerequisite(s): MATH 2414 must be the 4 credit hour version.

MUSI 1071. Student Recital. 0 Credit Hours.
Recital attendance credit for music majors and minors. Required of all music majors and minors. This course may be repeated for credit.

MUSI 1114. Piano Class for Music Majors I. 1 Credit Hour.
Class piano instruction for music majors with an emphasis on the practical application of music theory involving harmonization, transposition, and related keyboard skills.

MUSI 1115. Piano Class for Music Majors II. 1 Credit Hour.
Class piano instruction for music majors with an emphasis on the practical application of music theory involving harmonization, transposition, and related keyboard skills.

MUSI 1116. Sight Singing & Ear Training I. 1 Credit Hour.
Singing tonal music in treble and bass clefs, and aural study of elements of music, such as scales, intervals and chords, and dictation of basic rhythm, melody and diatonic harmony.

MUSI 1117. Sight Singing & Ear Training II. 1 Credit Hour.
Singing tonal music in various clefs, continued aural study of the elements of music, and dictation of intermediate rhythm, melody and diatonic harmony.
MUAP 4269. Private Lesson Instruction VII. 2 Credit Hours.
This course is designed to provide individualized instruction in solo technique and repertoire for the musical performer. Prerequisite: 6 hours of private instruction.

MUAP 4270. Private Lesson Instruction VIII. 2 Credit Hours.
This course is designed to provide individualized instruction in solo technique and repertoire for the musical performer. Prerequisite: 7 semesters of private instruction; Corequisite: MUSI 4098 (Senior Recital) required.

MUEN 3121. Symphonic Band. 1 Credit Hour.
Rehearsal and performance of quality concert band literature from a variety of styles. Open to any student by audition only.

MUEN 3123. Orchestra. 1 Credit Hour.
Rehearsal and performance of quality orchestral literature from a variety of styles. Open to any student by audition only.

MUEN 3124. Jazz Ensemble. 1 Credit Hour.
Rehearsal and performance of quality jazz ensemble literature from a variety of styles. Open to any student by audition only.

MUEN 3142. Chorale. 1 Credit Hour.
Designed to give participants a challenging, stylized choral experience. Performs a wide variety of literature, emphasizing the more difficult choral works. Open to any student by audition.

PHED 1301. Foundations of Kinesiology. 3 Credit Hours.
(030) (080) The purpose of this course is to provide students with an introduction to human movement that includes the historical development of physical education, exercise science, and sport. This course offers the student both an introduction to the knowledge base, as well as, information on expanding career opportunities.

PHED 1304. Personal Community Health. 3 Credit Hours.
(030) (080) This course provides an introduction to the fundamentals, concepts, strategies, applications, and contemporary trends related to understanding personal and/or community health issues. This course also focuses on empowering various populations with the ability to practice healthy living, promote healthy lifestyles, and enhance individual well-being.

PHED 1306. First Aid. 3 Credit Hours.
Instruction and practice for emergency care. Designed to enable students to recognize and avoid hazards within their environment, to render intelligent assistance in case of accident or sudden illness, and to develop skills necessary for the immediate and temporary care of the victim. Successful completion of the course may enable the student to receive a certificate from a nationally recognized agency.

PHED 1338. Concepts of Physical Fitness. 3 Credit Hours.
This course is designed to familiarize students with knowledge, understanding and values of health related fitness and its influence on the quality of life emphasizing the development and implementation of fitness programs.

PHED 1346. Drug Use & Abuse. 3 Credit Hours.
(080) Study of the use, misuse and abuse of drugs and other harmful substances in today’s society. Physiological, sociological, pharmacological and psychological factors will be emphasized.

PHIL 1301. Introduction to Philosophy. 3 Credit Hours.
(040) A study of major issues in philosophy and/or the work of major philosophical figures in philosophy. Topics in philosophy may include theories of reality, theories of knowledge, theories of value, and their practical applications.

PHIL 1304. Introduction to World Religions. 3 Credit Hours.
(040) A comparative study of world religions, including but not limited to Hinduism, Buddhism, Judaism, Christianity, and Islam.

PHIL 2303. Introduction to Formal Logic. 3 Credit Hours.
(020) (040) (080) The purpose of the course is to introduce the student to symbolic logic, including syllogisms, propositional and predicate logic, and logical proofs in a system of rules.

PHIL 2306. Introduction to Ethics. 3 Credit Hours.
(040) The systematic evaluation of classical and/or contemporary ethical theories concerning the good life, human conduct in society, morals, and standards of value.

PHIL 2307. Introduction to Social & Political Philosophy. 3 Credit Hours.
(040) A study of major issues in social and political theory and/or the work of major philosophical figures in this area.

PHIL 2316. Classical Philosophy. 3 Credit Hours.
(040) Study of major philosophers and philosophical themes from the ancient through medieval periods.

PHIL 2321. Philosophy of Religion. 3 Credit Hours.
(040) A study of the major issues in the philosophy of religion such as the existence and nature of God, the relationships between faith and reason, the nature of religious language, religious experience, and the problem of evil.

PHYS 1101. College Physics I (Lab). 1 Credit Hour.
(30) This laboratory-based course accompanies PHYS 1301, College Physics I. Laboratory activities will reinforce fundamental principles of physics, using algebra and trigonometry; the principles and applications of classical mechanics and thermodynamics, including harmonic motion, mechanical waves and sound, physical systems, Newton’s Laws of Motion, and gravitation and other fundamental forces; emphasis will be on problem solving.

PHYS 1102. College Physics II (Lab). 1 Credit Hour.
(030) This laboratory-based course accompanies PHYS 1302, College Physics II. Laboratory activities will reinforce fundamental principles of physics, using algebra and trigonometry; the principles and applications of electricity and magnetism, including circuits, electrostatics, electromagnetism, waves, sound, light, optics, and modern physics topics; with emphasis on problem solving.

PHYS 1103. Stars and Galaxies (Lab). 1 Credit Hour.
(030) Study of stars, galaxies, and the universe outside our solar system. May or may not include a laboratory.

PHYS 1104. Solar System Laboratory. 1 Credit Hour.
(030) Study of the sun and its solar system, including its origin. May or may not include a laboratory.

PHYS 1105. Elementary Physics I (Lab). 1 Credit Hour.
(030) Conceptual level survey of topics in physics intended for liberal arts and other non-science majors. May or may not include a laboratory.

PHYS 1107. Elementary Physics II (Lab). 1 Credit Hour.
(030) Conceptual level survey of topics in physics intended for liberal arts and other non-science majors. May or may not include a laboratory.

PHYS 1110. Elementary Physics (single-semester course, lab). 1 Credit Hour.
(030) Conceptual level survey of topics in physics intended for liberal arts and other non-science majors. May or may not include a laboratory.
PHYS 1115. Physical Science I (Lab). 1 Credit Hour.
(030) Course, designed for non-science majors, that surveys topics from physics, chemistry, geology, astronomy, and meteorology. May or may not include a laboratory.

PHYS 1117. Physical Science II (Lab). 1 Credit Hour.
(030) Course, designed for non-science majors, that surveys topics from physics, chemistry, geology, astronomy, and meteorology. May or may not include a laboratory.

PHYS 1301. College Physics I (Lecture). 3 Credit Hours.
(030) Fundamental principles of physics, using algebra and trigonometry; the principles and applications of classical mechanics and thermodynamics, including harmonic motion, mechanical waves and sound, physical systems, Newton's Laws of Motion, and gravitation and other fundamental forces; with emphasis on problem solving. Prerequisite(s): MATH 1314 or MATH 2312 or MATH 2412.

PHYS 1302. College Physics II (Lecture). 3 Credit Hours.
(030) Fundamental principles of physics, using algebra and trigonometry; the principles and applications of electricity and magnetism, including circuits, electrostatics, electromagnetism, waves, sound, light, optics, and modern physics topics; with emphasis on problem solving. Prerequisite(s): PHYS 1301 or PHYS 1401.

PHYS 1303. Stars and Galaxies (Lecture). 3 Credit Hours.
(030) Study of stars, galaxies, and the universe outside our solar system. May or may not include a laboratory.

PHYS 1304. Solar System (Lecture). 3 Credit Hours.
(030) Study of the sun and its solar system, including its origin. May or may not include a laboratory.

PHYS 1305. Elementary Physics I (Lecture). 3 Credit Hours.
(030) Conceptual level survey of topics in physics intended for liberal arts and other non-science majors. May or may not include a laboratory.

PHYS 1306. Elementary Physics II (Lecture). 3 Credit Hours.
(030) Conceptual level survey of topics in physics intended for liberal arts and other non-science majors. May or may not include a laboratory.

PHYS 1310. Elementary Physics (single-semester course, lecture). 3 Credit Hours.
(030) Conceptual level survey of topics in physics intended for liberal arts and other non-science majors. May or may not include a laboratory.

PHYS 1315. Physical Science I (Lecture). 3 Credit Hours.
(030) Course, designed for non-science majors, that surveys topics from physics, chemistry, geology, astronomy, and meteorology. May or may not include a laboratory.

PHYS 1317. Physical Science II (Lecture). 3 Credit Hours.
(030) Course, designed for non-science majors, that surveys topics from physics, chemistry, geology, astronomy, and meteorology. May or may not include a laboratory.

PHYS 1401. College Physics I (Lecture + Lab). 4 Credit Hours.
(030) Fundamental principles of physics, using algebra and trigonometry; the principles and applications of classical mechanics and thermodynamics, including harmonic motion, mechanical waves and sound, physical systems, Newton's Laws of Motion, and gravitation and other fundamental forces; with emphasis on problem solving. Laboratory activities will reinforce fundamental principles of physics, using algebra and trigonometry; the principles and applications of classical mechanics and thermodynamics, including harmonic motion, mechanical waves and sound, physical systems, Newton's Laws of Motion, and gravitation and other fundamental forces; emphasis will be on problem solving.

PHYS 1402. College Physics II (Lecture + Lab). 4 Credit Hours.
(030) Fundamental principles of physics, using algebra and trigonometry; the principles and applications of electricity and magnetism, including circuits, electrostatics, electromagnetism, waves, sound, light, optics, and modern physics topics; with emphasis on problem solving. Laboratory activities will reinforce fundamental principles of physics, using algebra and trigonometry; the principles and applications of electricity and magnetism, including circuits, electrostatics, electromagnetism, waves, sound, light, optics, and modern physics topics; with emphasis on problem solving.

PHYS 1403. Stars and Galaxies (Lecture + Lab). 4 Credit Hours.
(030) Study of stars, galaxies, and the universe outside our solar system. May or may not include a laboratory.

PHYS 1404. Solar System (Lecture + Lab). 4 Credit Hours.
(030) Study of the sun and its solar system, including its origin. May or may not include a laboratory.

PHYS 1405. Elementary Physics I (Lecture + Lab). 4 Credit Hours.
(030) Conceptual level survey of topics in physics intended for liberal arts and other non-science majors.

PHYS 1407. Elementary Physics II (Lecture + Lab). 4 Credit Hours.
(030) Conceptual level survey of topics in physics intended for liberal arts and other non-science majors. May or may not include a laboratory.

PHYS 1410. Elementary Physics (single-semester course, lecture + lab). 4 Credit Hours.
(030) Conceptual level survey of topics in physics intended for liberal arts and other non-science majors. May or may not include a laboratory.

PHYS 1415. Physical Science I (Lecture + Lab). 4 Credit Hours.
(030) Course, designed for non-science majors, that surveys topics from physics, chemistry, geology, astronomy, and meteorology.

PHYS 1417. Physical Science II (Lecture + Lab). 4 Credit Hours.
(030) Course, designed for non-science majors, that surveys topics from physics, chemistry, geology, astronomy, and meteorology. May or may not include a laboratory.

PHYS 2125. University Physics Laboratory I (Lab). 1 Credit Hour.
(030) Basic laboratory experiments supporting theoretical principles presented in PHYS 2325 involving the principles and applications of classical mechanics, including harmonic motion and physical systems; experimental design, data collection and analysis, and preparation of laboratory reports.

PHYS 2126. University Physics Laboratory II (Lab). 1 Credit Hour.
(030) Laboratory experiments supporting theoretical principles presented in PHYS 2326 involving the principles of electricity and magnetism, including circuits, electromagnetism, waves, sound, light, and optics; experimental design, data collection and analysis, and preparation of laboratory reports.

PHYS 2325. University Physics I. 3 Credit Hours.
(030) Fundamental principles of physics, using calculus, for science, computer science, and engineering majors; the principles and applications of classical mechanics, including harmonic motion, physical systems and thermodynamics; and emphasis on problem solving.

PHYS 2326. University Physics II. 3 Credit Hours.
(030) Principles of physics for science, computer science, and engineering majors, using calculus, involving the principles of electricity and magnetism, including circuits, electromagnetism, waves, sound, light, and optics.
PHYS 2425. University Physics I. 4 Credit Hours.
(030) Fundamental principles of physics, using calculus, for science, computer science, and engineering majors; the principles and applications of classical mechanics, including harmonic motion, physical systems and thermodynamics; and emphasis on problem solving. Involving the principles and applications of classical mechanics, lab activities include harmonic motion and physical systems; experimental design, data collection and analysis, and preparation of laboratory reports.

PHYS 2426. University Physics II. 4 Credit Hours.
(030) Principles of physics for science, computer science, and engineering majors, using calculus, lab activities: the principles of electricity and magnetism, including circuits, electromagnetism, waves, sound, light, and optics.

PORT 2311. Intermediate Portuguese I. 3 Credit Hours.
(040) Review and application of skills in listening comprehension, speaking, reading, and writing. Emphasizes conversation, vocabulary acquisition, reading, composition, and culture.

PORT 2312. Intermediate Portuguese II. 3 Credit Hours.
(040) Review and application of skills in listening comprehension, speaking, reading, and writing. Emphasizes conversation, vocabulary acquisition, reading, composition, and culture.

PSYC 1300. Learning Framework. 3 Credit Hours.
A study of the 1) research and theory in the psychology of learning, cognition, and motivation, 2) factors that impact learning, and 3) application of learning strategies. Theoretical models of strategic learning, cognition, and motivation serve as the conceptual basis for the introduction of college-level student academic strategies. Students use assessment instruments (e.g., learning inventories) to help them identify their own strengths and weaknesses as strategic learners. Students are ultimately expected to integrate and apply the learning skills discussed across their own academic programs and become effective and efficient learners. Students developing these skills should be able to continually draw from the theoretical models they have learned. (Cross-listed as EDUC 1300).

PSYC 2301. General Psychology. 3 Credit Hours.
(080) General Psychology is a survey of the major psychological topics, theories and approaches to the scientific study of behavior and mental processes.

PSYC 2306. Human Sexuality. 3 Credit Hours.
(080) This course will provide an overview of the broad field of human sexuality. Topics will be covered from various perspectives – biological, sociological, anthropological, etc., but will focus primarily on the psychological perspective. The goal is for each student to learn factual, scientifically-based information that will provoke thought and contribute to his/her own decision-making on sexual issues outside of the classroom.

PSYC 2307. Adolescent Psychology. 3 Credit Hours.
(080) This course explores the physical, behavioral, mental, emotional, and social changes that accompany growth and development in adolescence. The purpose of this course is to provide an overview of theories, research, issues, and applications related to adolescent development.

PSYC 2308. Child Psychology. 3 Credit Hours.
(080) This course will address psychological development from conception through middle childhood with references to physical, cognitive, social and personality changes. Students will examine the interplay of biological factors, human interaction, social structures and cultural forces in development.

PSYC 2314. Lifespan Growth & Development. 3 Credit Hours.
(080) Life-Span Growth and Development is a study of social, emotional, cognitive and physical factors and influences of a developing human from conception to death.

PSYC 2315. Psychology of Adjustment. 3 Credit Hours.
(080) Study of the processes involved in adjustment of individuals to their personal and social environments.

PSYC 2316. Psychology of Personality. 3 Credit Hours.
(080) Study of various approaches to determinants, development, and assessment of personality.

PSYC 2317. Statistical Methods in Psychology. 3 Credit Hours.
(020) (080) This course covers descriptive and inferential statistics used in psychological research and assessment. It includes measurement, characteristics of distributions; measures of central tendency and variability; transformed scores; correlation and regression; probability theory; and hypotheses testing and inference. (PSYC 2317 is included in the Psychology Field of Study.) Prerequisite(s): PSYC 2301 MATH 1314.

PSYC 2319. Social Psychology. 3 Credit Hours.
(080) Study of individual behavior within the social environment. Topics may include socio-psychological processes, attitude formation and change, interpersonal relations, group processes, self, social cognition, and research methods. (PSYC 2319 is included in the Psychology Field of Study).

PSYC 2320. Abnormal Psychology. 3 Credit Hours.
This course provides an introduction to the psychological, biological, and socio-cultural factors involved in the development, diagnosis, and treatment of psychological disorders. It includes a review of the historical understanding of abnormal behavior and the development of modern diagnostic systems. It includes discussion of psychological research and practice as it relates to mental health and psychological functioning, as well as legal and ethical issues. (PSYC 2320 is included in the Psychology Field of Study.) Prerequisite(s): PSYC 2301.

PSYC 2330. Biological Psychology. 3 Credit Hours.
An introduction to the biological bases of behavior. Topics include evolution, genetics, research methods in behavioral neuroscience, motivation and emotion, sensation and perception, learning and memory, lifespan development, cognition, psychological disorders, and other complex behaviors. (PSYC 2330 is included in the Psychology Field of Study.) Prerequisite(s): PSYC 2301.

RUSS 1411. Beginning Russian I. 4 Credit Hours.
(040) Fundamental skills in listening comprehension, speaking, reading, and writing. Includes basic vocabulary, grammatical structures, and culture.

RUSS 1412. Beginning Russian II. 4 Credit Hours.
(040) Fundamental skills in listening comprehension, speaking, reading, and writing. Includes basic vocabulary, grammatical structures, and culture.

RUSS 2311. Intermediate Russian I. 3 Credit Hours.
(040) Review and application of skills in listening comprehension, speaking, reading, and writing. Emphasizes conversation, vocabulary acquisition, reading, composition, and culture.
RUSS 2312. Intermediate Russian II. 3 Credit Hours.
(040) Review and application of skills in listening comprehension, speaking, reading, and writing. Emphasizes conversation, vocabulary acquisition, reading, composition, and culture.

SGNL 1401. Beginning American Sign Language I. 4 Credit Hours.
Introduction to American Sign Language covering finger spelling, vocabulary, and basic sentence structure in preparing individuals to interpret oral speech for the hearing impaired.

SGNL 1402. Beginning American Sign Language II. 4 Credit Hours.
Introduction to American Sign Language covering finger spelling, vocabulary, and basic sentence structure in preparing individuals to interpret oral speech for the hearing impaired.

SGNL 2301. Intermediate American Sign Language I. 3 Credit Hours.
(040) Review and application of conversational skills in American Sign Language; interpreting from signing to voice as well as from voice to signing. Introduction to American Sign Language literature and folklore.

SGNL 2302. Intermediate American Sign Language II. 3 Credit Hours.
(040) Review and application of conversational skills in American Sign Language; interpreting from signing to voice as well as from voice to signing. Introduction to American Sign Language literature and folklore.

SOCI 1301. Introduction to Sociology. 3 Credit Hours.
(080) The scientific study of human society, including ways in which groups, social institutions, and individuals affect each other. Causes of social stability and social change are explored through the application of various theoretical perspectives, key concepts, and related research methods of sociology. Analysis of social issues in their institutional context may include topics such as social stratification, gender, race/ethnicity, and deviance.

SOCI 1306. Social Problems. 3 Credit Hours.
(080) 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.
(080) 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 2306. Human Sexuality. 3 Credit Hours.
(080) This course will provide an overview of the broad field of human sexuality. Topics will be covered from various perspectives – biological, sociological, anthropological, etc., but will focus primarily on the psychological perspective. The goal is for each student to learn factual, scientifically-based information that will provoke thought and contribute to his/her own decision-making on sexual issues outside of the classroom. (Cross-listed as PSYC 2306).

SOCI 2319. Minority Studies. 3 Credit Hours.
(040) (080) This course studies minority-majority group relations, addressing their historical, cultural, social, economic, and institutional development in the United States. Both sociological and social psychological levels of analysis will be employed to discuss issues including experiences of minority groups within the context of their cultural heritage and tradition, as well as that of the dominant culture. Core concepts to be examined include (but are not limited to) social inequality, dominance/subordination, prejudice, and discrimination. Particular minority groups discussed may include those based on poverty, race/ethnicity, gender, sexual orientation, age, disability, or religion.

SOCI 2326. Social Psychology. 3 Credit Hours.
(080) Study of individual behavior within the social environment. May include topics such as the socio-psychological process, attitude formation and change, interpersonal relations, and group processes.

SOCI 2336. Criminology. 3 Credit Hours.
(080) The course surveys various theories of crime, with an emphasis on understanding the social causes of criminal behavior. The techniques for measuring crime as a social phenomenon and the characteristics of criminals are examined. This course addresses crime types (such as consensual or white-collar crimes), the criminal justice system, and other social responses to crime.

SOCI 2340. Drug Use & Abuse. 3 Credit Hours.
(080) Study of the use and abuse of drugs in today’s society. Emphasizes the physiological, sociological, and psychological factors.

SOCW 2361. Introduction to Social Work. 3 Credit Hours.
(080) An overview of the history and development of social work as a profession. The course is designed to foster a philosophical, historical, and critical understanding of the social work profession, including social work values, ethics, and areas of practice utilized under a Generalist Intervention Model. (SOCW 2361 is included in the Social Work Field of Study.).

SOCW 2362. Social Welfare: Legislation, Programs, and Services. 3 Credit Hours.
(080) This course offers a historical and contemporary examination of legislation and resulting programs, policies, and services in the context of the social welfare system in the United States. Special attention is given to the political, economic, environmental, and social conditions that prompted the development of legislation to meet the needs of vulnerable populations. Societal responses to legislation are also considered. (SOCW 2362 is included in the Social Work Field of Study.).

SOCW 2389. Academic Cooperative. 3 Credit Hours.
Introductory exposure to the field of social work. In conjunction with individual study and/or seminars, the student will set specific goals and objectives in the study of social work and/or social institutions. The academic cooperative is not a social work skills-based practice experience, but instead, an observational volunteer experience. The course must include a minimum of 80 contact hours (48 hours in a social service setting). (SOCW 2389 is included in the Social Work Field of Study.) Prerequisite(s): SOCW 2361.

SPAN 1311. Beginning Spanish I. 3 Credit Hours.
Basic Spanish language skills in listening, speaking, reading, and writing within a cultural framework. Students will acquire the vocabulary and grammatical structures necessary to communicate and comprehend at the beginner level.
SPAN 1312. Beginning Spanish II. 3 Credit Hours.  
Continued development of basic Spanish language skills in listening, speaking, reading, and writing within a cultural framework. Students acquire the vocabulary and grammatical structures necessary to communicate and comprehend at the high beginner to low intermediate level.

SPAN 1411. Beginning Spanish I. 4 Credit Hours.  
(040) Basic Spanish language skills in listening, speaking, reading, and writing within a cultural framework. Students will acquire the vocabulary and grammatical structures necessary to communicate and comprehend at the beginner level.

SPAN 1412. Beginning Spanish II. 4 Credit Hours.  
(040) Continued development of basic Spanish language skills in listening, speaking, reading, and writing within a cultural framework. Students acquire the vocabulary and grammatical structures necessary to communicate and comprehend at the high beginner to low intermediate level.

SPAN 2311. Intermediate Spanish I. 3 Credit Hours.  
(040) The consolidation of skills acquired at the introductory level. Further development of proficiency in listening, speaking, reading and writing. Emphasis on comprehension, appreciation, and interpretation of the cultures of the Spanish-speaking world.

SPAN 2312. Intermediate Spanish II. 3 Credit Hours.  
(040) The consolidation of skills acquired at the introductory level. Further development of proficiency in listening, speaking, reading and writing. Emphasis on comprehension, appreciation, and interpretation of the cultures of the Spanish-speaking world.

SPAN 2313. Spanish for Native/Heritage Speakers I. 3 Credit Hours.  
(040) Builds upon existing oral proficiencies of heritage speakers of Spanish. Enhances proficiencies in the home-based language by developing a full range of registers including public speaking and formal written discourse. Emphasis on comprehension, appreciation, and interpretation of the cultures of the Spanish-speaking world.

SPAN 2315. Spanish for Native/Heritage Speakers II. 3 Credit Hours.  
(040) Builds upon existing oral proficiencies of heritage speakers of Spanish. Enhances proficiencies in the home-based language by developing a full range of registers including public speaking and formal written discourse. Emphasis on comprehension, appreciation, and interpretation of the cultures of the Spanish-speaking world.

SPCH 1311. Introduction to Speech Communication. 3 Credit Hours.  
(010) Introduces basic human communication principles and theories embedded in a variety of contexts including interpersonal, small group, and public speaking.

SPCH 1315. Public Speaking. 3 Credit Hours.  
(010) Application of communication theory and practice to the public speaking context, with emphasis on audience analysis, speaker delivery, ethics of communication, cultural diversity, and speech organizational techniques to develop students’ speaking abilities, as well as ability to effectively evaluate oral presentations.

SPCH 1318. Interpersonal Communication. 3 Credit Hours.  
(010) (080) Application of communication theory to interpersonal relationship development, maintenance, and termination in relationship contexts including friendships, romantic partners, families, and relationships with co-workers and supervisors.

SPCH 1321. Business & Professional Communication. 3 Credit Hours.  
(010) Study and application of communication within the business and professional context. Special emphasis will be given to communication competencies in presentations, dyads, teams and technologically mediated formats.

SPCH 2341. Oral Interpretation. 2341 Credit Hours.  
(050) Theories and techniques in analyzing and interpreting literature. Preparation and presentation of various literary forms.

TECA 1303. Families, School, & Community. 3 Credit Hours.  
(080) 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. 241 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. The course includes a minimum of 16 hours of field experiences.

TECA 1354. Child Growth & Development. 3 Credit Hours.  
(080) A study of the physical, emotional, social, language, and cognitive factors impacting growth and development of children through adolescence.
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